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AN ILLUSTRATED BI-MONTHLY MAGAZINE DEVOTED TO
THE STUDY AND PROTECTION OF BIRDS

EDITED BY

FRANK M. CHAPMAN

Official Organ of the Audubon Societies

AUDUBON DEPARTMENT EDITED BY

MABEL OSGOOD WRIGHT

AND

WILLIAM DUTCHER

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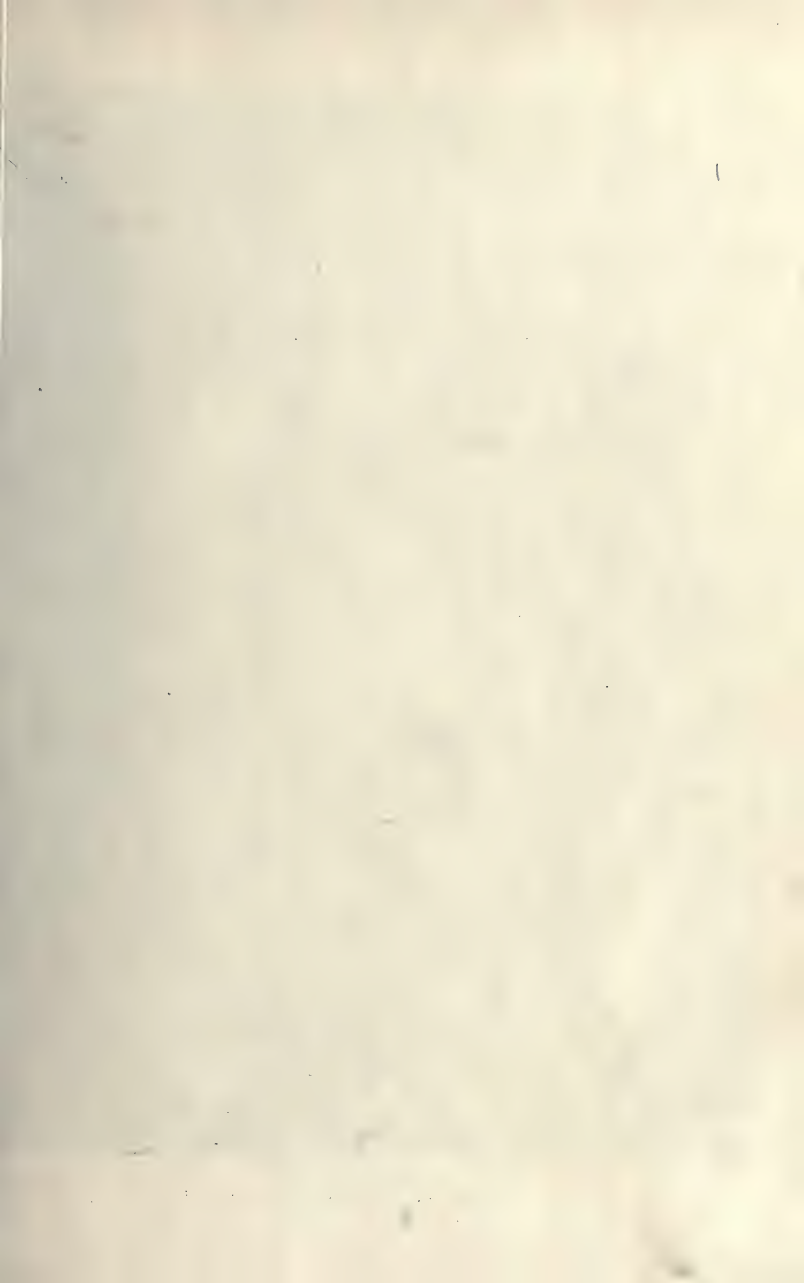
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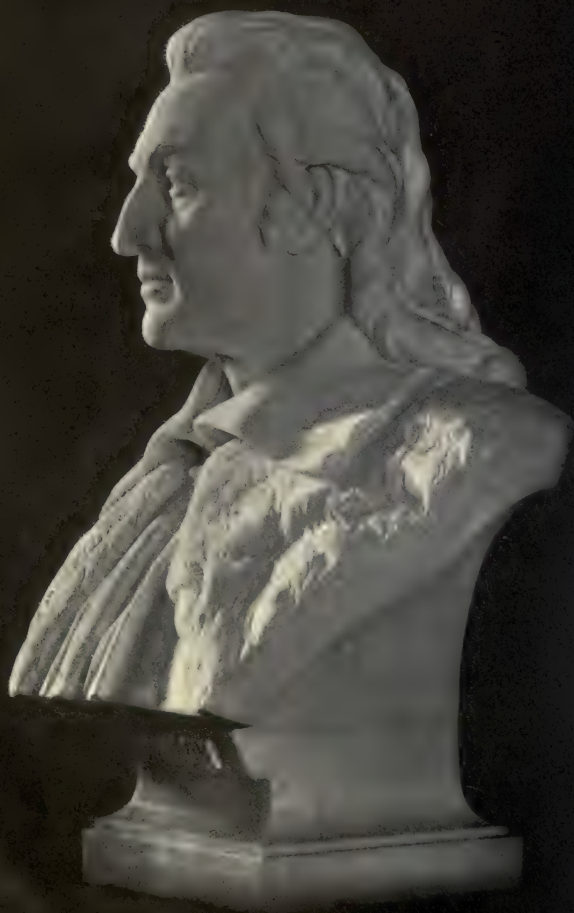
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JOHN JAMES AUDUBON

From the bust by William Couper in the American Museum of Natural History

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No. 1

John James Audubon

By C. HART MERRIAM¹

OF the naturalists of America no one stands out in more picturesque relief than Audubon, and no name is dearer than his to the hearts of the American people.

Born at an opportune time, Audubon undertook and accomplished one of the most gigantic tasks that has ever fallen to the lot of one man to perform. Although for years diverted from the path Nature intended him to follow, and tortured by half-hearted attempts at a commercial life, against which his restive spirit rebelled, he finally, by the force of his own will, broke loose from this bondage and devoted the remainder of his days to the grand work that has made his memory immortal.

His principal contributions to science are his magnificent series of illustrated volumes on the birds² and quadrupeds³ of North America, his *Synopsis of Birds*⁴, and the *Journals*⁵ of his expeditions to Labrador and to the Missouri and Yellowstone rivers.

The preparation and publication of his elephant folio atlases of life-size colored plates of birds, begun in 1827 and completed in 1838, with the accompanying volumes of text (the 'Ornithological Biography,' 1831-1839), was a colossal task. But no sooner was it accomplished than an equally sumptuous work on the mammals was undertaken, and, with the assistance of Bachman, likewise carried to a successful termination. For more than

¹ An address delivered at the American Museum of Natural History, December 29, 1906, on the unveiling of busts of ten pioneers of American science, presented to the Museum by its president, Morris K. Jesup.

² 'The Birds of America.' 4 atlases, double elephant folio, colored plates. London, 1827-1838; *Ornithological Biography*, an account of the habits of the birds of the United States. 5 vols. Royal 8vo. Edinburgh, 1831-1839.

³ 'The Quadrupeds of North America,' by John James Audubon and Rev. John Bachman. 3 vols. Royal 8vo. text, and elephant folio atlas of colored plates. New York, 1846-1854.

⁴ 'Synopsis of Birds of North America.' Edinburgh and London, 1839.

⁵ 'Audubon and His Journals,' by Maria R. Audubon. 2 vols. 8vo. New York, 1897.

three-quarters of a century the splendid paintings which adorn these works, and which for spirit and vigor are still unsurpassed, have been the admiration of the world.

In addition to his more pretentious works, Audubon wrote a number of minor articles and papers and left a series of Journals, since published by his granddaughter, Miss Maria R. Audubon. The Journals are full to overflowing with observations of value to the naturalist, and, along with the entertaining 'Episodes,' throw a flood of light on contemporary customs and events—and incidentally are by no means to be lost sight of by the historian.

In searching for material for his books, Audubon traveled thousands of miles afoot in various parts of the eastern states, from Maine to Louisiana; he also visited Texas, Florida and Canada, crossed the ocean a number of times, and conducted expeditions to far-away Labrador and the then remote Missouri and Yellowstone rivers. When we remember the limited facilities for travel in his day—the scarcity of railroads, steamboats and other conveniences—we are better prepared to appreciate the zeal, determination and energy necessary to accomplish his self-imposed task.

That it was possible for one man to do so much excellent field work, to write so many meritorious volumes, and to paint such a multitude of remarkable pictures must be attributed in no small part to his rare physical strength—for do not intellectual and physical vigor usually go hand in hand and beget power of achievement? Audubon was noted for these qualities. As a worker he was rapid, absorbed, and ardent; he began at daylight and labored continuously till night, averaging fourteen hours a day, and, it is said, allowed only four hours for sleep.

In American ornithology, in which he holds so illustrious a place, it was not his privilege to be in the strict sense a pioneer, for before him were Vieillot, Wilson and Bonaparte; and contemporaneous with him were Richardson, Nuttall, Maximilian Prince of Wied, and a score of lesser and younger lights—some of whom were destined to shine in the near future.

Audubon was no closet naturalist—the technicalities of the profession he left to others—but as a field naturalist he was at his best and had few equals. He was a born woodsman, a lover of wild nature in the fullest sense, a keen observer, an accurate recorder, and, in addition, possessed the rare gift of instilling into his writings the freshness of nature and the vivacity and enthusiasm of his own personality.

His influence was not confined to devotees of the natural sciences, for in his writings and paintings, and in his personal contact with men of affairs, both in this country and abroad, he exhaled the freshness, the vigor, the spirit of freedom and progress of America—and who shall attempt to measure the value of this influence to our young republic?

Audubon's preëminence is due, not alone to his skill as a painter of birds

and mammals, nor to the magnitude of his contributions to science, but also to the charm and genius of his personality—a personality that profoundly impressed his contemporaries, and which, by means of his biographies and journals, it is still our privilege to enjoy. His was a type now rarely met—combining the grace and culture of the Frenchman with the candor, patience, and earnestness of purpose of the American. There was about him a certain poetic picturesqueness and a rare charm of manner that drew people to him and enlisted them in his work. His friend, Dr. Bachman of Charleston, tells us that it was considered a privilege to give to Audubon what no one else could buy. His personal qualities and characteristics appear in some of his minor papers—notably the essays entitled 'Episodes.' These serve to reveal, perhaps better than his more formal writings, the keenness of his insight, the kindness of his heart, the poetry of his nature, the power of his imagination, and the vigor and versatility of his intellect.



MONUMENT ERECTED TO AUDUBON IN TRINITY CEMETERY,
NEW YORK CITY



PELICAN ISLAND, CHARLOTTE HARBOR, FLORIDA

The birds here all nest in trees

Florida Bird Notes

By T. GILBERT PEARSON

With photographs by the author

WHILE in Florida last year, in the interests of the National Association of Audubon Societies, the writer spent some time studying ornithological conditions of the lower Gulf Coast region lying between Tampa and Key West. The objects of the cruise were, in part, to visit the bird reservations in Tampa Bay; to explore, in quest of bird colonies, a territory heretofore but slightly known; to investigate reported traffic in Egret plumes; and, finally, to select a home in Key West for Mrs. Guy Bradley, wife of the murdered game-warden. The expedition was made, mainly in a two-masted sailing vessel, from which frequent expeditions were made among the Keys and on the neighboring mainland.

Indian Key Reservation, near St. Petersburg, was visited on April 11, 1906. This island is about ninety acres in extent and is covered thickly with mangrove trees, many of which attain a height of thirty feet. At this time comparatively few birds were present. Seven Great White Herons were seen standing on the mangroves, but two nests examined revealed no eggs. Near by, one hundred or more Louisiana and Little Blue Herons were likewise engaged in nest-building, but no eggs were seen. A flock of Cormorants, numbering about sixty, left the trees at our approach and settled on the water, as did also perhaps two dozen Brown Pelicans, but these, too, were apparently not interested in domestic affairs. A Barn Owl,

a Red-bellied Woodpecker and a few Prairie Warblers were the other birds found. In July, 1905, the writer found Pelicans and Cormorants breeding here in immense numbers, and fully five thousand Man-o'-War birds were using the island as a roosting place.

Passage Key, near the mouth of Tampa Bay, showed on April 18, but an earnest of the throng of bird-life which gathers here later in the season. This island is a low bank of sand covered sparingly with grass and cacti. Near the north sides a pond with a thickly grown margin of trees furnished ideal nesting sites for perhaps fifteen hundred Louisiana Herons. The nests contained usually from three to five eggs. A few Ward's Great Blue Herons were also here, with their well-grown young. A flock of Teal and a Greater Scaup Duck were swimming contentedly about the pond. Ground Doves, were abundant and many Laughing Gulls filled the sea wind with their shoutings.

Mrs. Asa Pillsbury, wife of the warden in charge, has a long list of birds she has seen here. One of her records is the Florida Burrowing Owl, in fact, the warden pointed out one of the burrows of this interesting bird.

Eight miles south of Passage Key a little crescent-shaped mangrove island, less than two hundred feet in length, was the home of a colony of Cormorants and Brown Pelicans on April 15. At this time egg-laying had begun, although many nests were not yet completed.



A SCENE ON PELICAN ISLAND, INDIAN RIVER

Photographed by F. M. Chapman. The trees having disappeared, the Pelicans here nest upon the ground. Compare with Mr. Pearson's pictures where all the birds are nesting in trees

Explorations on shore with local guides resulted in the finding of eight breeding colonies of Herons. They were all located in 'pop-ash' trees growing in small fresh-water ponds. Louisiana, Little Blue, Black-crowned, Ward's Great Blue and Green Herons were found, the relative abundance of the species being in the order named. The Louisiana and Little Blue were about equal in numbers and were far more numerous than the others.

One colony of about twelve pairs of Yellow-crowned Night Herons was located. The nests were in the semi-darkness of an exceedingly thick, swampy growth. Two nests were examined; these held four eggs each. The bird not infrequently, however, deposits five or six. The Anhenga, locally called 'Water Turkey,' was frequently associated with the Herons, and the snuff-colored young were often seen standing on the nests or near-by limbs.



TREE NEST OF BROWN PELICAN

Bald Eagles were occasionally seen and a number of their nests were found. These were usually in the tops of the largest trees available and were sometimes six feet in thickness. Gray Kingbirds were common, especially near the coast, although outnumbered at least two to one by *Tyrannus carolinensis*.

A few miles north of the Caloosahatchee River, on April 23, two large colonies of Brown Pelicans were discovered. Many nests had not yet been completed, and birds were continually flying about with twigs in their bills. No young were found. One of the islands must have been the home of two thousand, the other of at least four thousand of these great birds. In view of the fact that Mr. Chapman has found this species breeding in the Indian River, on the east coast of Florida as early as December, it is interesting to note that here on the west coast, at a point fully as far south,

In the scrub-palmetto flat woods of Manatee county, Sandhill Cranes were common, and some of their nests were photographed on April 21. The loud, rattling cry of these birds sounded strange in the silence of the lonely pine barrens, but added much of interest and charm to the journeys inland. The Caracara, or 'Mexican Buzzard,' was here, also, at times alert and exceedingly wary, again exhibiting a stupidity and lack of fear for which it is difficult to account.



TWO PELICAN POSES

Photographed by A. L. Princehorn, from zoological garden specimens

the Pelican's domestic affairs were four months behind the birds of the Atlantic. In the five breeding colonies of Pelicans found on the Gulf Coast, not one of them furnished the sight of young birds in April.

On the coast and its immediate neighborhood, Louisiana Herons were abundant, and, in fact, they were far more numerous than all the other Herons combined. Several large nesting places were discovered. In Gasparilla Sound are two keys which, at the date visited, must have each held 1,000 or 1,200 nests. Three other populous rookeries of these birds were found among the Ten Thousand Islands.

Unfortunately, the bird laws of Florida are but slightly enforced, although several professional hunters stated that the presence of Guy Bradley in the Cape Sable region had prevented them from operating in that territory. The colonies are constantly raided for their eggs. A negro fisherman told me that cake made with Pelican eggs "has shure made fine eating." Cormorants are shot in great numbers for food. Plume-hunting on a large scale is no longer profitable, owing to the scarcity of plume-birds. Egrets and Snowy Herons are now so scarce in the sections visited that not over a dozen individuals were seen during the six weeks of field observations.



NEST AND EGGS OF SANDHILL CRANE

Bluebird Tenants

By MARIAN E. HUBBARD, Wellesley College



THE BLUEBIRDS' WINDOW

Photographed by L. E. Lockwood

THE Bluebirds nested just outside the dining-room window on the third floor of a suburban apartment house. This building is in the town of Wellesley and surrounded by other houses, but on one side it stands close to the eastern slope of a long, low ridge that forms one of the natural boundaries of the college grounds. Oak-woods, sprinkled with pine, crown the hill and extend one-third of the way down over the eastern side. Birds of many feathers frequent this wooded slope. In the springtime Warblers glean about its edges, the Great-crested Flycatcher whistles, buoyant, as he flies from tree to tree, and notes of the Wood Thrush rise through the stillness of late afternoon like bubbles from the bottom of a spring.

* The window to which the Bluebirds came is the west one of a southwest bay, and looks straight out and up to the wooded hill. A house stands opposite, a little higher on the slope, surrounded by an apple orchard, some trees of which stray down to the yard immediately beneath.

From this window, for two winters past, birds have been fed with suet and nuts. The success of the winter boarding establishment bred the idea of summer boarders, and at the end of the first winter there was set out upon a shelf a substantial and attractive dwelling made out of an apple-tree bough,—the gift of an ingenious and nature-loving friend. The tenement had no occupants during the first season, but last spring a pair of Bluebirds, desperate over their fortunes in a cat-infested neighborhood, took the lease.

On April 25 there was grass inside the house, with telltale wisps protruding from the entrance. Both birds came openly to the shelf that day, and both worked busily for three days more. Later, four blue eggs were laid, and while the female brooded these, the male, on the tip-top twig of a neighboring tree or on a telephone wire some forty feet away, defended valiantly his domain.

Anticipating the exhausting work of the following weeks, a supply of

tempting meal-worms was laid in. Sometimes the female, slipping away from her task for a brief interval, would help herself to a worm or two, but by far the greater number were devoured by the male, who watched keenly for every issuance of the rations.

On June 13 the young birds hatched, and with that event began the busy season. Tirelessly the mother came and went. She seemed too absorbed to think of eating, and when she did help herself to meal-worms, it was with an eat-to-live air that contrasted strongly with the evident relish of the male. Upon her fell the chief burden of providing food and of keeping both nest and young ones clean. But the male was no idle father. That nest was the apple of his eye, and he guarded it as such. Moreover, he assisted in the feeding to no inconsiderable degree.

Besides meal-worms, the young were fed on the usual Bluebird diet of spiders, crickets, grasshoppers, cutworms and other insects, large and small. The male spent much of his time on the edge of the shelf. The arrival of the female with a load of provender was announced by a short, subdued, yet decisive *chep*, that seemed to ask for a clear track to the nest, a wish that had only to be uttered to be granted by the male. Each visit of the parent birds with food precipitated from the young a shower of notes that sounded like *chéé-ee-ee-ee*, *chéé-ee-ee-ee*, *chéé-ee-ee-ee*, and which did not cease until after the old ones had gone away.

Frequently a parent would be observed standing on the nest-porch, looking attentively inside,—an attitude, no doubt, of nest-inspection. Notes on this side of household duties are, unfortunately, almost lacking, but in the few cases that were observed the female removed the excretal sacs to a distance, the large white bundle plainly visible in her bill as far as the eye could follow, some three hundred feet.

During these days of preparation of the young for flight, the old birds grew accustomed to their unusual location and came and went freely, paying no attention to ordinary sounds and movements in the room, even permitting a person to sit near the open window. It was during this time that most of the photographs were taken, the camera being set up within three feet of the window-sill.

June 27, fourteen days after the hatching of the eggs, the most precocious of this precocious brood flew. This was toward sundown. No more of the brood came out that night, and the parent birds, absorbed in the care of their first-flown, let the rest go supperless to bed.

The next day was a quiet one. Occasionally the old birds came with food. At 4:25 in the afternoon the second aspirant scrambled up to the nest-hole, where, clinging to the outer rim, it whistled loud and clear the Bluebird call-note — *túr-wee* — which the parent answered from the tree. This was the first utterance of this call, and later observation made it clear that it precedes immediately departure from the nest, and may even

be reckoned upon to herald that event. For half an hour this youngster clung at the entrance, gazing out at the untried world and starting nervously at sounds within the room. To fly or not to fly, that was the question, and, as it sat there wavering, the camera registered its indecision. At last, encouraged by calls from the parent, it flew to the tree below.

In ten minutes another *túr-wee* was heard, as the owner made its way to the air and light. This young one flew in five minutes. Just one minute later came another call as of one fearful of being left behind; but this



MALE BLUEBIRD AT NEST

Photographed from nature by A. P. Morse

nestling, after scrambling up to the light, fell back for the night, slipping away unnoticed early in the morning.

They were all out now, and to the parents, busy with the initiation of their charges into the ways of the perilous world, meal-worms offered no further charms.

On July 12, just two weeks afterward, the old birds reappeared at the window, helped themselves to meal-worms and went in to inspect their house. Soon they began to prepare for the second brood. Some of the old grasses were pulled out, new grass was brought, and this time some horsehair was used for lining.

On August 1, three weeks after the birds began to repair the nest, the second brood hatched.

The story of the second brood is a very different one from that of the

first. From the beginning the birds were much more timid, but this at first could be accounted for by the fact that the room was not used much of the time, and they could not so readily accustom themselves to occasional sounds and movements. As the days went on the male grew very nervous, starting at the slightest stir of people in the room, when six or even twelve feet distant. Appetites flagged and meal-worms were often left untasted. More alarming still, the young were fed with much less frequency. The male seldom left the shelf for any length of time. Had any one supposed that guarding of the nest was an easy job, that illusion would have been quickly dispelled by the sight of this patient father at his post, with bill agape, the picture of discomfort. Dog-days had set in early, and the sun beat upon the window through the middle of the day and in the afternoon until the hill threw over it a friendly shadow. The need of some protection was painfully apparent, and finally, in desperation, an old umbrella was raised outside the window and fastened to a hook inside. The relief as it went up each day was immediate and apparent.

One curious habit of the male after the second brood was hatched was that of sitting on the nest-porch, facing the window, with his body pressed close against the hole. Sometimes he would leave this position for the edge of the shelf after the umbrella had been raised, but on other occasions he would take his station there even in the protecting shadow. Was this merely because the porch was an easier resting place than the shelf-rim, or was it an instinctive attempt to keep out heat? In any event, the action, though it may have been useful in the morning when the sun was pouring in, was of doubtful value at other times, when it resulted in shutting out the air.

Something was wrong in the Bluebird household, as indicated by the increasing nervousness and evident anxiety of the male. Many times he would stand on the porch, peering steadily into the nest, in a fashion different from that of ordinary nest-inspection. His mute devotion was sweet to see, but it was also painful to watch him growing more worn and harassed. The female all this time came and went, brooded even through the hottest nights, and was apparently steadied by her constant service.

The cause of the anxiety became apparent when, on the ninth day, a little dead body, after much effort, was thrown up to the nest-hole and pushed out on the porch. The umbrella, though put up two days after the eggs were hatched, had been raised too late.

The next day, flies about the nest and a bad odor told the tale of another tragedy. The male was very nervous again and, as he sat against the entrance, snapped at the flies that buzzed about his head. Late in the afternoon the female went inside and tried to get the dead bird out. Over and over again the little body could be seen tossed up to the opening, but each attempt to get it out was unsuccessful. Three times this was repeated in the course of an hour and a half, and at last she got it in such a position that it could be

reached with pinning-forceps, with which in her absence it was removed. The old birds looked once at the body as it lay on the shelf, but paid no further attention to it.

One more tragedy remains to be recorded. Early on the sixteenth day, flies buzzed again about the window. The absence of both parents suggested the fearful thought that perhaps all of the rest of the brood had died. Reassured at last that the nest was not deserted, the house was lifted from the shelf and carried to the kitchen table, where its roof was quickly taken off. Within was one dead bird and one living one. When this sole survivor of the brood was lifted out he showed no fear, but cuddled down confidently in the hand and at the whistled call-note opened his mouth for a meal-worm. It was not long, after the nest was put back on the shelf, before the old birds came with food.

Three days later, when he was nineteen days old, fear developed, and on being placed on a couch he hopped away hurriedly to hide behind a radiator. In the afternoon he gave from the nest, for the first time, the call-note, and five minutes later scrambled up to the opening. Hopping to the edge of the shelf, he called again, and then, putting his trust in his untried wings, he flew straight off and up to a tree one hundred feet away. The old birds had been watching and followed now, guarding his course till he alighted. Another flight to the roof of the neighboring house, with some imperfect attempts at stopping, and he was off to the hill, still tended by his watchful parents.

An hour later the male came back to the nest-porch, and seated himself against the entrance. Now and then he looked inquiringly into the nest. The umbrella had been taken down, but after it was raised he came again and took a drink; after that he disappeared and nothing more was seen of the Bluebird tenants.



A BLUEBIRD HOME

Photographed from nature by F. E. Howe, Sterling, Ill.

Bird-Lore's Seventh Christmas Bird Census

EACH year an increasing number of observers take part in BIRD-LORE'S Christmas Census. Established primarily as a means of arousing interest in field work and of encouraging definite methods of recording one's observations, we are now gradually accumulating a mass of exact information, interesting in itself and, in the aggregate, affording a definite basis for comparison with results obtained in other years. It, therefore, has true scientific value.

Millbrook, Ontario.—Time, 10 A. M. to 2 P. M. Clear; foot of snow on ground; wind northwest, light; temp., 6° to 8°. Downy Woodpecker, 3; Blue Jay, 7; Pine Grosbeak, 10; White-breasted Nuthatch, 3; Chickadee, 16. Total, 5 species, 39 individuals.—S. HUNTER.

Orangeville, Ontario—December 21; time, 8.25 A. M. to 12 M.; 1.25 to 3.30 P. M. Damp and foggy atmosphere; about nine inches of snow; wind west, light; temp., 23° to 29°. American Goshawk, 1; Blue Jay, 5; Pine Grosbeak, 4; White-winged Crossbill, 19; Chickadee, 27. Total, 5 species, 56 individuals. Snowflakes were seen on December 16 and Golden-crowned Kinglets on December 18.—CHARLIE MCFAYDEN and E. W. CALVERT.

Toronto, Ontario, High Park and Humber Bay.—December 22; time, 10 A. M. to 12.40 P. M. Light snow, storm at first, bright after; about six inches of snow; wind northwest, light; temp., about 15°. American Herring Gull, 1; Old Squaw, about 50; Downy Woodpecker, 2; Pine Grosbeak, 13; Slate-colored Junco, 12; Brown Creeper, 5; White-breasted Nuthatch, 1; Red-breasted Nuthatch, 1; Chickadee, 17; Golden-crowned Kinglet, 1. Total, 10 species, 103 individuals.—E. WELLINGTON CALVERT.

Reaboro, Ontario.—December 26; time, 10.20 A. M. to 12.20 P. M.; 1.05 to 2.20 P. M. Sky dull; about eight inches of snow; wind west, light; temp., 28° to 32°. Ruffed Grouse, 3; Hairy Woodpecker, 1; Downy Woodpecker, 1; White-winged Crossbill, 1; White-throated Sparrow, 2; White-breasted Nuthatch, 3; Chickadee, 5. Total, 7 species, 16 individuals. Small flocks of Snowflakes have been seen here this winter.—E. WELLINGTON CALVERT.

Canterbury, N. H.—Time, 8.45 to 10.45 A. M. Cloudy; snow; wind west; very rough day. Ruffed Grouse, 1; Downy Woodpecker, 1; Chickadee, 12 to 15. Total, 3 species, 14 to 17 individuals.—SHERMAN E. PHILLIPS.

Cornish, N. H.—Time, 9.30 to 11 A. M.; 3.40 to 5 P. M. Cloudy and dark; ground covered with several inches of snow; constantly snowing; strong breeze; temp., 20°. Hairy Woodpecker, 1; Downy Woodpecker, 1; Blue Jay, 7; Redpoll, 14; Tree Sparrow, 7; White-breasted Nuthatch, 1; Chickadee, 17; Golden-crowned Kinglet, 2. Total, 8 species, 50 individuals.—ETHEL R. BARTON.

Tilton, N. H.—December 26; time, 9 A. M. to 4 P. M. Cloudy, with snow-squalls; about two feet of snow on ground; wind northwest, light; temp., 25°. American Mer-ganser, 13; Hairy Woodpecker, 1; Downy Woodpecker, 1; Blue Jay, 2; Redpoll, 42; Tree Sparrow, 1; Northern Shrike, 1; White-breasted Nuthatch, 3; Chickadee, 32; Golden-crowned Kinglet, 7. Total, 10 species, 103 individuals.—EDWARD H. PERKINS.

Wilton, N. H.—Time, 8.45 to 11.45 A. M. and 3.45 to 4.45 P. M. Cloudy; ground covered with six to ten inches of snow; strong northwest wind; several squalls; temp., 20° to 25°. Ruffed Grouse, 1; Downy Woodpecker, 2; Northern Flicker, 1; Blue Jay, 11; American Crow, 6; Pine Grosbeak, 9; White-winged Crossbill, 5; Redpoll, 3; Snowflake, 6; White-breasted Nuthatch, 3; Chickadee, 15. Total, 11 species, 62 individuals. Within two weeks I have observed a Shrike and Goshawk, also Pine Siskins

and Red-breasted Nuthatches, and today I found fresh work of the Pileated Woodpecker in a pine tree.—GEORGE G. BLANCHARD.

Burlington, Vt.—Time, 9 to 10.30 A. M., and 1.15 to 2 P. M. Snowing hard; ground covered with snow; wind northwest, strong; temp., 10°. From window.—Downy Woodpecker, 7; Pine Grosbeak, 3; American Goldfinch, 5; White-breasted Nuthatch, 5; Chickadee, 20. This is the first time I have seen the Pine Grosbeak about Burlington.—EMMA E. DREW.

Norwich, Vt.—December 18; time, 7.35 A. M. to 12.20 P. M. Cloudy to clear; snow, 6 inches beneath a sharp crust; wind north, moderate; temp., 14° to 11°. Canadian Ruffed Grouse, 2; Northern Downy Woodpecker, 2; Blue Jay, 1; American Crow, 18; Pine Grosbeak, 20; American Crossbill, 1; White-winged Crossbill, 53; Redpoll, 7; Brown Creeper, 5; White-breasted Nuthatch, 6; Red-breasted Nuthatch, 2; Chickadee, 48; Golden-crowned Kinglet, 8. Total, 13 species, 173 individuals.—MAURICE C. BLAKE.

Groton, Mass.—December 29, 1906; time, 8 to 8.30 A. M. Cloudy; five inches snow; no wind; temp., 38°. Blue Jay, 4; Crow, 12; Redpoll, 115; Snowflake, 1; White-breasted Nuthatch, 2; Chickadee, 13. Total, 6 species, 147 individuals.—ALVIN G. WHITNEY.

Ipswich, Mass., Castle Hill and part of Beach.—December 22; time, 12.15 to 3 P. M. Weather cloudy; wind west, light; ground bare; temp., 42°. Holboell's Grebe, 1; Loon, 1; Black-backed Gull, 11; Herring Gull, 25; Red-breasted Merganser, 107; Downy Woodpecker, 1; Flicker, 2; Horned Lark, 5; American Crow, 130; Canadian Pine Grosbeak, 6; Snowflake, 2; Ipswich Sparrow, 4; Tree Sparrow, 40, a few singing; Junco, 4; Myrtle Warbler, 5; Chickadee, 6; Ring-necked Pheasant, 5. Total, 17 species, 355 individuals.—MISS E. D. BOARDMAN and MRS. LIDIAN E. BRIDGE.

Ipswich, Mass.—Time, 10 A. M. to 12 M. Cloudy; about a foot of snow on the ground; wind northwest, fresh; temp., 30°. Crow, 39; Chickadee, 18; Hawk, 1; Flicker, 1; Pine Grosbeak, 6. Total, 5 species, 65 individuals.—FRANCIS C. WADE and JESSE H. WADE.

Lynn Beach and Nahant, Mass.—December 26; time, 9.30 A. M. to 2.30 P. M. Fair to cloudy; snow 7 inches; wind west, fresh, to northwest, brisk; temp., 25° to 32°. Horned Grebe, 5; Loon, 2; Red-throated Loon, 1; Black Guillemot, 1; Iceland Gull, 1; Great Black-backed Gull, 12; Herring Gull, 600; Red-breasted Merganser, 8; Red-legged Black Duck, 4; American Golden-eye, 160; Bufflehead, 30; Old Squaw, 66; White-winged Scoter, 6; Horned Lark, 34; American Crow, 10; American Crossbill, 1; White-winged Crossbill, 5; Redpoll, 3; Greater Redpoll, 1; Snowflake, 8; Tree Sparrow, 1; Song Sparrow, 5; Chickadee, 21. Total, 23 species, 985 individuals.—HORACE W. WRIGHT, GORDON WELLMAN and MAURICE C. BLAKE.

Devereux and Marblehead Neck, Mass.—December 29; time, 9.10 A. M. to 1.30 P. M. Fair; two inches of snow on ground; wind north, light; temp., 40° to 47°. Holboell's Grebe, 18; Horned Grebe, 8; Great Black-backed Gull, 2; American Herring Gull, 90; Red-breasted Merganser, 2; American Golden-eye, 60; Old Squaw, 13; Great Horned Owl, 1; Northern Flicker, 10; Horned Lark, 1; American Crow, 8; White-winged Crossbill, 23; Redpoll, 2; American Goldfinch, 8; Pine Siskin, 7; Tree Sparrow, 17; Song Sparrow, 6; Northern Shrike, 2; Myrtle Warbler, 8; Chickadee, 23. Total, 20 species, 309 individuals.—MAURICE C. BLAKE and HORACE W. WRIGHT.

Fitchburg, Mass.—December 29, 1906; time, 2 to 5 P. M. Cloudy; five inches of snow on ground; no wind; temp., 40°. Ruffed Grouse, 4; Downy Woodpecker, 1; Blue Jay, 5; Brown Creeper, 2; White-breasted Nuthatch, 1; Chickadee, 25; Golden-crowned Kinglet, 12. Total, 7 species, 50 individuals.—F. N. DILLON, A. G. WHITNEY and G. F. HUBBARD.

Nahant to Lynn, Mass.—December 21; time, 11 A. M. to 2.30 P. M. Weather cloudy; wind northeast, light; ground bare; temp., 28°. Holboell's Grebe, 1; Loon,

1; Great Black-backed Gull, 1; Herring Gull, 500; American Scaup Duck, 2; American Golden-eye, 17; Old Squaw, 41; White-winged Scoter, 10; Horned Lark, 10; American Crow, 39; Pine Siskin, 24; Snowflake, 15; Song Sparrow, 2; Chickadee, 4. Total, 14 species, 667 individuals.—MISS E. D. BOARDMAN, MRS. LIDIAN E. BRIDGE.

Squantum and Moon Island, Mass.—December 28; time, 9.45 A.M. to 3.00 P.M. Cloudy to fair, snow-flurries; snow two inches; wind southwest, light; temp., 32° to 36°. Great Black-backed Gull, 40; Herring Gull, 700; Red-breasted Merganser, 4; American Scaup Duck, 200; American Golden-eye, 125; Old Squaw, 8; American Sparrow Hawk, 1; Short-eared Owl, 3; Northern Downy Woodpecker, 1; Northern Flicker, 7; Horned Lark, 2; American Crow, 70; American Crossbill, 1; Redpoll, 4; Pine Siskin, 2; Snowflake, 2; Tree Sparrow, 8; Slate-colored Junco, 2; Song Sparrow, 12; Northern Shrike, 1; Chickadee, 7; Robin, 3. Total, 22 species, 1,202 individuals.—HORACE W. WRIGHT, MAURICE C. BLAKE and FRANCIS G. BLAKE.

Bolton, Mass.—Time, 10.30 A.M. to 1 P.M. Walk of one and one-half miles; snow-storm, ground covered; wind light, west of north; temp., 22°. Blue Jay, 1; Pine Grosbeak, 3; White-breasted Nuthatch, 1; Chickadee, 6. Total, 4 species, 11 individuals.—AGNES M. LEARNED.

Bolton, Mass.—December 26; time, all day; seen from windows. Sunny; five inches of snow; wind light, west of north; temp., 30°. Downy Woodpecker, 1; Blue Jay, 3; American Crow, 5; Pine Grosbeak, 7; American Goldfinch, 2; White-breasted Nuthatch, 1; Chickadee, 7. Total, 7 species, 26 individuals.—H. L., M. F., and A. M. LEARNED.

Belmont, Mass.—Time, 2.45 to 5.30 P.M. Snowing, ground covered with snow; wind northwest, strong; temp., 26° to 18°. Downy Woodpecker, 1; Crow, 6; heard a flock of Canadian Pine Grosbeaks and a flock of White-winged Crossbills; American Goldfinch, 4; Redpoll, 15; Junco, 2; Brown Creeper, 1; Chickadee, 3; Golden-crowned Kinglet, 3. Total, 10 species, over 35 individuals.—ARTHUR W. FLETCHER and SAMUEL D. ROBBINS.

Belmont, Mass.—December 24; time, 7 to 9 A.M. Cloudy; wind not noticeable; ground covered with snow; temp., 20°. Hairy Woodpecker, 1; Downy Woodpecker, 1; Northern Flicker, 1; Canadian Pine Grosbeak, 15; Pine Siskin, 3; Junco, 2; Crow, 3; Chickadee, 5. Total, 8 species, 31 individuals.—ADELE FITZPATRICK and SAMUEL D. ROBBINS.

Belmont, Mass.—December 25; time, 2.15 to 4.45 P.M. Snow flurries, ground covered with snow; wind strong, northwest; temp., 26° to 24°. Northern Flicker, 1; Blue Jay, 3; American Crow, 1; Screech Owl, 1; Canadian Pine Grosbeak, 70; American Goldfinch, 2; Junco, 2; Chickadee, 9; Golden-crowned Kinglet, 9. Total, 9 species, 97 individuals.—ADELE FITZPATRICK and SAMUEL ROBBINS.

Belmont, Mass.—December 26; time, 9.30 A.M. to 12.30 P.M. Clear; ground covered with snow; wind northwest, light; temp., 30°. Blue Jay, 1; Crow, 2; Canadian Pine Grosbeak, 5; White-winged Crossbill, 4; Redpoll, 4; American Goldfinch, 4; Slate-colored Junco, 22; Song Sparrow, 2; Brown Creeper, 1; White-breasted Nuthatch, 1 (heard); Chickadee, 8; Golden-crowned Kinglet, 5. Total, 12 species, 59 individuals.—ARTHUR W. FLETCHER and SAMUEL D. ROBBINS.

Milton Hill, Mass.—December 27; time, 5.30 A.M. to 5 P.M. Fair to overcast; south breeze, cool; snow on ground. Great Black-backed Gull, 7; American Herring Gull, 100; Red-breasted Merganser, 15; Scaup Duck, 3 (large flocks of 1,000+ off shore, probably these birds); American Golden-eye, 500; Old Squaw, 40; Sharp-shinned Hawk, 1; Flicker, 1; Horned Lark, 10; Blue Jay, 2; Crow, 1,000; Goldfinch, 20; Snowflake, 3; Slate-colored Junco, 1; White-breasted Nuthatch, 2; Chickadee, 10; Golden-crowned Kinglet, 3. Total, 17 species, 2,719 individuals (numbers approximate).—BEATRICE COBB and STANLEY COBB.

Needham, Mass.—December 19; time, 9 A.M. to 1 P.M. Clear; ground nearly

bare; wind east to southeast, light; temp., 15° . Downy Woodpecker, 1; Blue Jay, 6; American Crow, 3; Pine Grosbeak, 10; Redpoll, 12; Tree Sparrow, 33; Junco, 11; Chewink, 1, male; Brown Creeper, 1; White-breasted Nuthatch, 2; Chickadee, 17; Golden-crowned Kinglet, 4. Total, 12 species, 101 individuals. A flock of 33 Pine Grosbeaks were seen on December 20.—CHARLES E. HEIL.

West Roxbury, Mass.—December 22; time, 10 A.M. to 1.30 P.M. Cloudy; ground bare; no wind; temp., 34° . Flicker, 6; Blue Jay, 6; American Crow, 28; White-winged Crossbill, 18; American Goldfinch, 2; Tree Sparrow, 4; Junco, 6; Red-breasted Nuthatch, 1; Chickadee, 10; Golden-crowned Kinglet, 9. Total, 10 species, 90 individuals.—CHARLES E. HEIL.

Boston, Mass. (Arnold Arboretum to Brookline Village and Howard Bridge).—December 22; time, 9.20 A.M. to 12.20 P.M. No wind; fair; no snow on ground; temp., 26° . Herring Gull, 3; Golden-eye, 1; Great Horned Owl, 1; Downy Woodpecker, 1; Flicker, 8; Blue Jay, 9; Crow, 21; Goldfinch, 14; White-winged Crossbill, 3; Junco, 3; Song Sparrow, 3; Cedar Waxwing, 18; Myrtle Warbler, 3; Brown Creeper, 2; White-breasted Nuthatch, 6; Canadian Nuthatch, 5; Chickadee, 23; Golden-crowned Kinglet, 5. Total, 18 species, 129 individuals.—C. BOSSON.

Boston, Mass. (The Arnold Arboretum, Olmsted and Riverway Parks, the Fens, and Charles River).—December 22; time, 9 A.M. to 3.45 P.M. Fair, wind southwest, light, A.M.; clouded, wind northeast, light, P.M.; ground bare; temp., 37° to 44° . Great Black-backed Gull, 2; Herring Gull, 6; Black Duck, 1; Red-legged Black Duck, 5; Green-winged Teal, 1 duck; American Golden-eye, 45; Bob-white, 33; Ruffed Grouse, 1; American Sparrow Hawk, 1; Great Horned Owl, 1; Downy Woodpecker, 3; Flicker, 37; Blue Jay, 27; American Crow, 35; Pine Grosbeak, 6; Purple Finch, 6; American Crossbill, 9; White-winged Crossbill, 30; Redpoll, 5; American Goldfinch, 22; Pine Siskin, 7; White-throated Sparrow, 4 (one singing); Tree Sparrow, 10; Junco, 28; Song Sparrow, 14; Cedar Waxwing, 20; Myrtle Warbler, 1; Brown Creeper, 4; White-breasted Nuthatch, 2; Red-breasted Nuthatch, 4; Chickadee, 56; Golden-crowned Kinglet, 17; Robin, 1. Total, 33 species, 444 individuals.—HORACE W. WRIGHT, FRANCIS G. and MAURICE C. BLAKE.

Arlington Heights, Belmont and Cambridge (fresh pond marshes and region), Mass.—December 24; time, 9.15 A.M. to 3 P.M. Clouded to fair; five inches of snow on ground; wind northwest, light; temp., 18° to 24° . Red-shouldered Hawk, 1; American Sparrow Hawk, 1; Downy Woodpecker, 2; Flicker, 3; Blue Jay, 1; American Crow, 24; Pine Grosbeak, 79; American Crossbill, 7; White-winged Crossbill, 10; Redpoll, 23; American Goldfinch, 27; Pine Siskin, 5; Tree Sparrow, 32; Junco, 32; Song Sparrow, 3; Brown Creeper, 7; White-breasted Nuthatch, 3; Red-breasted Nuthatch, 2; Chickadee, 33; Golden-crowned Kinglet, 20. Total, 20 species, 315 individuals.—HORACE W. WRIGHT, FRANCIS G. and MAURICE C. BLAKE.

Middlesex Fells, Mass.—December 24; time, 9.30 A.M. to 12.30 P.M. Clear; four inches of snow on ground; wind northwest, light; temp., 15° to 21° . Red-tailed Hawk, 1; Red-shouldered Hawk, 1; Barred Owl, 1; Downy Woodpecker, 1; Blue Jay, 9; Crow, 10; Pine Grosbeak, 57; White-winged Crossbill, 3; Tree Sparrow, 6; Song Sparrow, 1; Carolina Wren, 1 (first seen November 21); Brown Creeper, 1; White-breasted Nuthatch, 1; Red-breasted Nuthatch, 1; Chickadee, 16; Golden-crowned Kinglet, 3. Total, 16 species, 113 individuals.—GORDON BOIT WELLMAN.

Squantum, Mass.—December 24; time, 12.40 to 3 P.M. Clear; five inches of snow on ground; wind northwest, strong; temp., 20° . Great Black-backed Gull, 2; American Herring Gull, 40; American Merganser, 20; American Scaup Duck, about 500; Old Squaw, 5; White-winged Scoter, 14; Horned Lark, 2; Pine Siskin, 1; Tree Sparrow, 1; Chickadee, 3. Total, 11 species, 588 individuals.—RICHARD MARBLE and JAMES L. PETERS.

Franklin Park (Arnold Arboretum and Allandale Woods), Mass.—December 23; time, 9.40 A. M. to 1.40 P. M. Cloudy, with occasional snow flurries; five inches of snow on the ground; wind west, light; temp., 26°. Bob-white, 1; Red-shouldered Hawk, 1; Northern Flicker, 7; Blue Jay, 7; American Crow, 8; Purple Finch, 5; White-winged Crossbill, about 50; Redpoll, 10; American Goldfinch, 15; Pine Siskin, 14; Slate-colored Junco, 2; Song Sparrow, 3; Cedar Waxwing, 4; Myrtle Warbler, 6; Red-breasted Nuthatch, 2; Chickadee, 7. Total, 16 species, 142 individuals.—JAMES L. PETERS.

Boston Park System, Mass.—December 26; time, 9 A. M. to 12.15 P. M. Clear; five inches of snow on ground; wind northwest, light; temp., 27°. American Herring Gull, 30; Red-legged Black Duck, 2; American Golden-eye, 2; Northern Flicker, 11; Blue Jay, 12; American Crow, 14; Purple Finch, 4; White-winged Crossbill, 32; American Goldfinch, 3; Song Sparrow, 3; Northern Shrike, 1; Myrtle Warbler, 3; White-breasted Nuthatch, 1; Red-breasted Nuthatch, 2; Chickadee, 28. Total, 15 species, 148 individuals.—JAMES L. PETERS.

Nahant, Mass.—December 27; time, 11.30 A. M. to 4.30 P. M. Cloudy; five inches of snow on the ground; wind south, light; temp., 38°. Holboell's Grebe, 1; Great Black-backed Gull, 49; Herring Gull, about 600; Red-legged Black Duck, 1; American Golden-eye, 18; Bufflehead, 1; Old Squaw, 20; White-winged Scoter, 12; Sparrow Hawk, 1; Horned Lark, 11; American Crow, 20; Snow Bunting, 18; Song Sparrow, 2. Total, 13 species, 754 individuals.—JAMES L. PETERS and ANNA K. BARRY.

Arnold Arboretum, Mass.—Time, 2.30 to 4.30 P. M. Snowy, ground covered with snow 6 inches deep; wind west, light; temp., 26°. Bob-white, 15; Flicker, 3; American Crow, 3; Pine Siskin, 50; Butcher Bird, 1; Brown Creeper, 1; Chickadee, 1. Total, 7 species, 74 individuals.—[?] name.

Cambridge, Mass.—Time, 8.30 to 10 A. M. Cloudy, six inches of snow; snowing lightly; wind northwest, light; temp., 12°. Red-shouldered Hawk, 1; Sparrow Hawk, 1; Downy Woodpecker, 1; Flicker, 1; American Crow, 2; Meadowlark, 1; Pine Grosbeak, 3; American Crossbill, 8; Tree Sparrow, 6; Song Sparrow, 1; Brown Creeper, 1; Chickadee, 5; Golden-crowned Kinglet, 2. Total, 13 species, 33 individuals.—JOHN H. BAKER.

West Medford, Mass.—December 23; time, 8.45 to 10.15 A. M. Weather cloudy; wind northeast, light; eight inches of snow on ground; trees and bushes coated with snow; temp., 28°. Flicker, 1; Blue Jay, 2; Pine Grosbeak, 10; White-winged Crossbill, 20; Snowflake, 100; Brown Creeper, 1; Chickadee, 8; Golden-crowned Kinglet, 1. Total, 8 species, 143 individuals. December 26 a Northern Shrike was singing on a tree next our house.—EDMUND and LIDIAN E. BRIDGE.

Watertown, Mass.—December 22; time, 10.15 A. M. to 12 M. (Time of low tide attracting Gulls to exposed flats.) Light fog, at times but thinly veiling the sun; ground bare; no wind; temp., about 40°. Great Black-backed Gull, 2; Herring Gull, 40; American Golden-eye, 37; Belted Kingfisher, 2; Flicker, 1; Blue Jay, 2; American Crow, 3; American Goldfinch, 23; Tree Sparrow, 3; Song Sparrow, 5; Chickadee, 2. Total, 11 species, 120 individuals, beside more English Sparrows than all others together.—ADELAIDE STOCKWELL.

Piety Corner, Waltham, Mass.—Time, 8 to 10 A. M. and from 12 M. to 1 P. M. Seen from the window. Cloudy, followed by snow; ground covered with snow; wind northwest, medium; temp., 15°. Downy Woodpecker, 2; Flicker, 1; Blue Jay, 4; Crow, 1; Junco, 13. Total, 5 species, 21 individuals. On December 24, I saw a Robin from the window.—E. J. WORCESTER.

Waltham, Mass.—Time, 10 A. M. to 2 P. M. Ground covered with ten inches of snow; snowing hard; wind northwest, strong; temp., 26° to 28°. Flicker, 3; Crow, 3; Goldfinch, 15; Tree Sparrow, 4; Junco, 2; Chickadee, 3; Robin, 2. Total, 7 species, 32 individuals.—B. L. RIPLEY.

Taunton, Mass.—Time, 9.45 to 11.15 A. M. Cloudy, snow flurries; ground snow-

covered; wind, northwest, moderate; temp., 22° to 24°. Bob-white, 13; Downy Woodpecker, 1; Flicker, 4; Blue Jay, 16; Crow, 13; Purple Finch, 1; Goldfinch, 21; Pine Siskin, 40; Tree Sparrow, 3; Junco, 75; Myrtle Warbler, 9; Chickadee, 2; Golden-crowned Kinglet, 1; Bluebird, 5. At home I saw the following birds feeding on suet, etc., on pear tree in back yard: Downy Woodpecker, 2; Nuthatch, 1; Chickadee, 4; Golden-crowned Kinglet, 1. Total, 15 species, 212 individuals.—LUCY B. BLISS.

West Taunton, Mass.—December 26; time, 11.45 A. M. to 4.15 P. M. Clear; ground well covered with snow; wind west, rather strong; temp., 28° to 30°. Bob-white, 7; Downy Woodpecker, 1; Blue Jay, 4; Crow, 565; Goldfinch, 22; Pine Siskin, 2; Tree Sparrow, 85; Junco, 86; Song Sparrow, 3; Myrtle Warbler, 1; White-breasted Nuthatch, 2; Chickadee, 5. Total, 12 species, 783 individuals.—EDITH M. HODGMAN.

Beverly, Mass.—Time, 8.30 to 11.30 A. M. Heavy snow-storm through forenoon, with about twelve inches of snow on the ground; wind west-northwest; temp., 20°. Great Black-backed Gull, 5; American Herring Gull, 125; Blue Jay, 2; Crow, 5; Pine Grosbeak, 40; Redpoll, 17; Tree Sparrow, 1; Junco, 6; Chickadee, 6; Golden-crowned Kinglet, 4. Total, 10 species, 211 individuals.—FRANK A. BROWN.

Nantucket, Mass.—Time, 7 A. M. to 8 P. M. Snow flurries, followed by clearing; ground mostly bare; wind northwest, strong; temp., 29°. Horned Grebe, 6; Loon, 15; Black Guillemot, 1; Great Black-backed Gull, 5; Herring Gull, 30; American Merganser, 19; Redhead, 18; American Scaup Duck, 7; Barrow Golden-eye, 2; Bufflehead, 1; Old Squaw, 22; American Eider Duck, 42; American Scoter, 2; White-winged Scoter, 32; American Crow, 30. Total, 15 species, 229 individuals.—ALVIN B. GURLEY.

Spencer, Mass.—December 22; time, 8 A. M. to 12 M., 1.30 to 3 P. M. Cloudy, ground bare; wind northeast, very light; temp., 30° to 36°. Downy Woodpecker, 3; Blue Jay, 1; Pine Grosbeak, 2; Redpoll, 14; Northern Shrike, 1; Chickadee, 13. Total, 6 species, 34 individuals.—H. H. BLANCHARD.

Hamilton, Mass.—Time, 9.30 A. M. to 12.30 P. M., and 2.30 to 3.30 P. M. Cloudy, snow squalls; wind northwest, strong; temp., 22°. Pheasant, 1; Flicker, 2; Downy Woodpecker, 1; Crow, 100; Pine Grosbeak, 20; Pine Siskin, 100; Tree Sparrow, 5; Chickadee, 4. Total, 8 species, 233 individuals.—REGINALD C. ROBBINS.

Oxford, Mass.—December 27; time, 9.15 to 10.15 A. M. Bright, several inches of snow; wind southwest, light; temp., 26°. Downy Woodpecker, 1; Blue Jay, 2; Tree Sparrow, 8; Chickadee, 3. Total, 4 species, 14 individuals.—GEORGIANNA M. WHELOCK.

Woonsocket, R. I.—Time, 9.45 to 11.45 A. M. Cloudy, ground snow-covered; wind, northwest, strong; temp., 26°. Downy Woodpecker, 1; Blue Jay, 9; Goldfinch, 16; Tree Sparrow, 10. Total, 4 species, 36 individuals.—CLARENCE M. ARNOLD.

Glocester, R. I.—Time, 8.30 A. M., to 1.30 P. M. Slightly cloudy, six inches of snow; wind northerly, strong; temp., 20°. Ruffed Grouse tracks; American Goshawk, 1; Screech Owl, 1; Purple Finch, 1; Chickadee, 2. Total, 4 species, 5 individuals. Two Song Sparrows seen daily up to December 24.—J. IRVING HILL.

New London, Conn.—December 26; time 9.45 A. M., to 1.30 P. M. Clear; ground partly covered with light snow; wind west, brisk; temp., 29°. Herring Gull, 11; Downy Woodpecker, 1; Blue Jay 2; Crow, 4; Goldfinch, 10; Junco, 1; Song Sparrow, 3; Chickadee, 5; Robin, 2; Bluebird, 2. Total, 10 species, 41 individuals.—FRANCES M. GRAVES.

New London, Conn.—December 28; time, 10 to 11 A. M., and 2 to 4 P. M. Drizzling rain in A. M., clear in P. M. Ground bare; no wind; temp., 40°. Herring Gull, 100; Great Black-backed Gull, 1; Whistler Duck, 8; Red-shouldered Hawk, 1; Horned Lark, 2; Pine Siskin, 30; Junco, 7; Song Sparrow, 2; Brown Creeper, 1; White-breasted Nuthatch, 1; Chickadee, 13; Bluebird, 14. Total, 14 species, 167 individuals.—FRANCES M. GRAVES.

New Haven, Conn.—December 24. Lighthouse Point to Mamoguin. Time, 8.45 to 11.30 A. M. Clear, occasional snow flurries; one inch of snow on ground; brisk north-

west wind; temp., 10°. Herring Gull, 200; White-winged Scoter, 6; Ducks (kind?), 40; Red-tailed Hawk, 1; Red-shouldered Hawk, 1; Hawk (kind?), 2; Crow, 21; English Starling, 16; Meadowlark, 20; Redpoll, 4; Tree Sparrow, 5; Song Sparrow, 1; Chickadee, 4. Total, 11 species, 321 individuals.—A. A. SAUNDERS, A. W. HONYWILL and D. B. PANGBURN.

New Haven, Conn.—An effort was made by five members of the New Haven Bird Club to cover the best sections of bird country in and about New Haven. The results follow: Fierce northwest wind; thin clouds covering sun; one inch of snow; temp., 18° to 22°.

I. Edgewood Park and Mitchell's Hill.—Time, 8.15 A. M. to 12.30 P. M. Red-tailed Hawk, 1; Downy Woodpecker, 3; Flicker, 1; Phoebe, 1; Blue Jay, 11; American Crow, 1; English Starling, 2; Redpoll, 11; Goldfinch, 1; Tree Sparrow, 6; Field Sparrow, 1; Slate-colored Junco, 4; Song Sparrow, 5; Myrtle Warbler, 3; Brown Creeper, 5; White-breasted Nuthatch, 6; Chickadee, 21; Golden-crowned Kinglet, 3; Bluebird, 1. Total, 19 species, 87 individuals. The Phoebe mentioned above has been in the park since November 25. Last year one was in the same locality from December 21 to March 10. On December 26, 4 Pine Siskins and 1 Northern Shrike were in the Park.—CLIFFORD H. PANGBURN.

II. East Haven and Lake Saltonstall.—Time, 8.30 A. M. to 1 P. M. Herring Gull, 26; Black Duck, 87; Red-tailed Hawk, 1; Sharp-shinned Hawk, 1; Hairy Woodpecker, 1; Flicker, 1; American Crow, 10; Blue Jay, 5; English Starling, 4; Meadowlark, 6; American Crossbill, 4; Goldfinch, 2; Tree Sparrow, 78; Slate-colored Junco, 16; Song Sparrow, 1; Brown Creeper, 2; White-breasted Nuthatch, 1; Red-breasted Nuthatch, 2; Chickadee, 34; Golden-crowned Kinglet, 17. Total, 21 species, 299 individuals.—A. A. SAUNDERS.

III. West Rock Park and Wintergreen Sap.—Time, 8.20 A. M. to 12.20 P. M. Red-tailed Hawk, 1; Downy Woodpecker, 1; Blue Jay, 2; American Crow, 5; English Starling, 2; Goldfinch, 30; Tree Sparrow, 3; Field Sparrow, 1; Slate-colored Junco, 6; Song Sparrow, 1; Myrtle Warbler, 1; White-breasted Nuthatch, 1; Chickadee, 13. Total, 13 species, 67 individuals.—DWIGHT B. PANGBURN.

IV. New Haven to West Haven.—Time, 9 A. M. to 1.30 P. M. Distance covered, twelve miles. Herring Gull, 20; Red-tailed Hawk, 1; Downy Woodpecker, 1; Flicker, 1; Blue Jay, 6; Crow, 7; English Starling, 6; Slate-colored Junco, 3; Song Sparrow, 1; White-breasted Nuthatch, 1; Chickadee, 3. Total, 11 species, 50 individuals.—A. W. HONYWILL.

V. Prospect Hill to Pine Rock.—Time, 10 A. M. to 1 P. M. Downy Woodpecker, 1; American Crow, 3; Junco, about 20; Song Sparrow, 2; Brown Creeper, 2; White-breasted Nuthatch, 3; Chickadee, 3; Golden-crowned Kinglet, 1; Bluebird, 3. Total, 9 species, about 38 individuals.—BERNARD E. LEETE.

Washington, Conn.—Time, 8.30 to 9 A. M. Clear; one inch of snow on ground; wind northwest; temp., 16°. Hairy Woodpecker, 1; Downy Woodpecker, 2; Tree Sparrow, 10; White-breasted Nuthatch, 2; Chickadee, 6. Total, 5 species, 21 individuals. December 28 two Pine Grosbeaks were seen among the trees. Observed the same pair November 24, 1906, and heard the call, which I had not heard since the winter of 1903-04, when these birds came for the first time under my observation.—WILHELMINA C. KNOWLES.

Glastonbury, Conn.—Time, 3.30 to 4.30 P. M. Six inches of snow; snowing a little; no wind; temp., 22°. Crow, 1; Tree Sparrow, 1; House Sparrow, 1; (heard Juncos;) White-breasted Nuthatch, 1; Chickadee, 3. Total, 6 species, 7 individuals. December 26 saw Downy Woodpecker and December 27 Brown Creeper.—EDITH M. CLARK.

Bristol, Conn.—Time, 7.30 A. M. to 12 M. Clear at 7 A. M., gradually clouding until half overcast at noon; 2 inches of snow underlaid with ice; fresh northwest wind, increasing to high but gusty; temp., 14° at start, 23° at noon. Downy Woodpecker, 1;

Blue Jay, 11; Crow, 2; Pine Grosbeak, 9; Redpoll, 40; Goldfinch, 1; Tree Sparrow, 10; Towhee, 1; White-breasted Nuthatch, 5; Chickadee, 11; Ruby-crowned Kinglet, 1. Total, 11 species, 92 individuals.—E. E. SMITH, R. W. FORD and FRANK BRUEN.

South Norwalk, Conn.—Time, 9 A. M. to 1 P. M. and 1.30 to 4.30 P. M. Fair, becoming cloudy; temp., 18° at 9 A. M.; distance covered, eight miles. Grebe, 1; Herring Gull, 54; Merganser, 1; Broadbill, 9; Golden-eye, 2; Goshawk, 1; Downy Woodpecker, 7; Flicker, 5; Shorelark, 1; Blue Jay, 3; Crow, 17; Starling, 55; Meadowlark, 27; Goldfinch, 9; Pine Siskin, 1; Tree Sparrow, 20; Junco, 57; Song Sparrow, 11; Northern Shrike, 1; Brown Creeper, 1; White-breasted Nuthatch, 8; Chickadee, 22; Golden-crowned Kinglet, 2; Bluebird, 11. Total, 24 species, 327 individuals.—WILBUR F. SMITH and REDDINGTON M. DAYTON.

Canandaigua, N. Y.—December 22; time, 7 to 11 A. M. Cloudy, snow flurries, wind northwest, brisk; temp., 20°. Horned Grebe, 1; Herring Gull, 1; Red-breasted (?) Merganser, 1; Black Duck, 30 (approximate); American Golden-eye, 15; Canada Goose, 40 (approximate); Crow, 200 to 250; Tree Sparrow, 45; Song Sparrow, 1. Total, 9 species, about 325 individuals. December 23. American Sparrow Hawk, 1; Hairy Woodpecker, 1. December 25, time, 8.30 A. M. to 12.30 P. M. and 2.30 to 5 P. M. Very stormy; strong northwest wind, with snow; temp., 13°. Downy Woodpecker, 1; Crow, about 200; Snowflake, 47; Tree Sparrow, 18; Song Sparrow, 5; Brown Creeper, 1; White-breasted Nuthatch, 3; Chickadee, 13; Ring-necked Pheasant, 7. Total, 9 species, 295 individuals. Total number of species, three days, 17.—FRANK T. ANTES.

Victor and Fishers, N. Y.—December 26; time, 8.15 A. M. to 2.45 P. M. Clear, becoming cloudy; wind west, brisk; temp., 20° to 33°. American Sparrow Hawk, 2; Great Horned Owl, 1; Downy Woodpecker, 2; Crow, 25; Blue Jay, 17; American Goldfinch, 11; Tree Sparrow, 24; Slate-colored Junco, 2; Song Sparrow, 2; Brown Creeper, 3; White-breasted Nuthatch, 4; Chickadee, 28; Golden-crowned Kinglet, 5; Ring-necked Pheasant, 2. Total, 14 species, 128 individuals.—FRANK T. ANTES.

Auburn, N. Y.—Time, 10 A. M. to 4 P. M. Weather cloudy, heavy snowfall throughout day, preceded by very cold weather, with much snow; wind very strong, northwest; temp., 15°. American Herring Gull, 4; American Merganser, 9; Red-breasted Merganser, 2; Bufflehead Duck, 2; American Golden-eye Duck, 9; American Sparrow Hawk, 1; Downy Woodpecker, 2; American Crow, 117; Tree Sparrow, 15; White-breasted Nuthatch, 1; Chickadee, 3. Total, 11 species, 165 individuals.—FREDERICK J. STUPP.

Rochester, N. Y.—December 26; time, 10.30 A. M. to 12 M. Cloudy, ground covered with snow; wind northwest, brisk; temp., 28°. Crow, 3; Pine Grosbeak, 3; White-breasted Nuthatch, 2; Chickadee, 1. Total, 4 species, 9 individuals. Also, December 23; time, 11 A. M. to 12 M. and 2.30 to 3.30 P. M. Cloudy, ground covered with snow, and snowing; wind northwest, light; temp., 10°. Cooper's Hawk, 1; Downy Woodpecker, 1.—NETTIE SELLINGER PIERCE.

Lyons, N. Y.—Time, 9 A. M. to 6 P. M. Distance covered, twenty-five miles; cloudy and snowing hard most of the day; about ten inches of snow on level, but much drifted, due to a very strong northwest wind; temp., 16°. Ruffed Grouse, 1; Downy Woodpecker, 1; American Crow, 12; Snowflake—two flocks—75 and 200, approximately; Slate-colored Junco, (?); Brown Creeper, 1; White-breasted Nuthatch, 1; Black-capped Chickadee, 36. Total, 8 species, about 350 individuals.—S. B. GAVITT and E. EARL ELLIOTT.

Orient Point, Long Island.—December 23; time, 7 A. M. to 4.30 P. M. Cloudy in morning; wind northwest, strong; ground slightly covered with snow; temp., 20° at start, 15° at return. Horned Grebe, 11; Loon, 13; Red-throated Loon, 1; Great Black-backed Gull, 3; Herring Gull, 461; Red-breasted Merganser, 42; Black Duck and Red-legged Black Duck, 20; Redhead, 1; American Scaup Duck, 104; American Golden-eye, 2; Bufflehead, 11; Old Squaw, 488; White-winged Scoter, 62; Surf Scoter, 12; Bob-white,

12; Red-tailed Hawk, 1; American Rough-legged Hawk, 1; Short-eared Owl, 1; Screech Owl, 2; Downy Woodpecker, 6; Flicker, 20; Horned Lark, 235; Blue Jay, 29; American Crow, 589; Fish Crow, 2; Red-winged Blackbird, 1; Meadowlark, 177 (several singing finely); American Crossbill, 21; White-winged Crossbill, 3; American Goldfinch, 32; Pine Siskin, 184; Snowflake, 154; Tree Sparrow, 290 (one singing spring song); Slate-colored Junco, 5; Song Sparrow, 91 (one singing sweetly); Swamp Sparrow, 1; Northern Shrike, 5; Myrtle Warbler, 218; Chickadee, 165; Golden-crowned Kinglet, 25; American Robin, 154. Total, 42 species, 3,659 individuals. A Pine Grosbeak, Redpoll and Purple Grackle were seen on December 18, a Red-breasted Nuthatch and a Hermit Thrush on the 20th.—FRANK, HARRY and ROY LATHAM.

Mt. Sinai, Long Island, N. Y.—Time, all day. Sky overcast; high north- to north-west winds; temp., 24° at 8 A. M.; slight thaw at midday. Horned Grebe, 1; Herring Gull, about 100; Black Duck, 4; White-winged Scoter, 35; Black-crowned Night Heron, 1; Bob-white, 4; Ruffed Grouse, 2; Horned Lark, 16; Crow, 90; Fish Crow, 4 (heard); Meadowlark, 75; English Sparrow, 3; Ipswich Sparrow, 1; White-throated Sparrow, 7; Tree Sparrow, 300 (approximately); Slate-colored Junco, 70; Song Sparrow, 19; Myrtle Warbler, 3; Winter Wren, 1; Chickadee, 2; Robin, 1. Country visited.—Sound Beach, salt swamps, upland fields, deciduous woods, and red cedar woods. Total, 21 species, 737 individuals.—ROBERT C. MURPHY and EDWARD A. MURPHY.

Huntington, Long Island.—Time, 10 A. M. to 12 30 P. M. Clear; ground thinly covered with snow; wind northwest, strong; temp., 24°. Herring Gull, 5; Screech Owl, 1; Downy Woodpecker, 1; Blue Jay, 2; American Crow, 13; Meadowlark, 5; American Goldfinch, 30; Junco, 35; Song Sparrow, 3; Chickadee, 7; Golden-crowned Kinglet, 5; Bluebird, 1. Total, 12 species, 108 individuals.—MISS CHARLOTTE E. LEE.

College Point to Long Beach, Long Island.—December 30; time, 7.20 A. M. to 5.30 P. M. Cloudy, rain in afternoon; ground bare; wind east; light to brisk; temp., 34°. Great Black-backed Gull, 10; Herring Gull, 100; Old Squaw, 50; Red-tailed Hawk, 2; Downy Woodpecker, 3; Blue Jay, 1; Crow, 10; Starling, 30; White-throated Sparrow, 2; Tree Sparrow, 50; Junco, 25; Song Sparrow, 5; Winter Wren, 1; Brown Creeper, 1; White-breasted Nuthatch, 2; Chickadee, 1. Total, 16 species, 293 individuals.—FRANCIS HARPER.

New York Harbor to and at the Cholera Bank (10 miles South of Long Beach, L. I.). December 22; time, 8.25 A. M. to 3.55 P. M. Weather, cloudy, misty, showers; wind, north-west, light to none; temp., about 35°. Loon, 6; Kittiwake, 3; Glaucous Gull, 2; Black-backed Gull, 20; Herring Gull, very common; Bonaparte Gull, 10; Old Squaw, 1. Total, 7 species, 42 individuals plus Herring Gulls.—R. E. STACKPOLE, WM. H. WIEGMANN, ISAAC BILDERSEE and C. H. ROGERS.

One Hundred and Thirtieth Street Ferry, New York, to Fort Lee, Coytesville, South Englewood, Leonia, etc., N. J.—December 23; time, 10.10 A. M. to 4.55 P. M. Weather, fine; brisk northwest wind; temp., about 21°. Herring Gull, 20; Red-shouldered Hawk, 1; American Rough-legged Hawk, 1; Barred Owl, 1 (dead); Downy Woodpecker, 2; Crow, 1; Red-shouldered Blackbird, 1; Pine Grosbeak, 12; American Crossbill, 1; White-winged Crossbill, 14; American Goldfinch, 9; White-throated Sparrow, 3; Tree Sparrow, 20; Field Sparrow, 2; Junco, 7; Song Sparrow, 3; Swamp Sparrow, 1; Northern Shrike, 1; Brown Creeper, 1; White-breasted Nuthatch, 3; Chickadee, 10. Total, 20 live species, 113 individuals.—CHARLES H. ROGERS.

Rockaway Beach, New York City.—December 23; time, 10.15 A. M. to 3.35 P. M. Cloudy first hour, fine afterward; ground bare; wind northwest, very strong; temp., 28°. Great Black-backed Gull, 55; Herring Gull, 400; Bonaparte's Gull, 1 (eight severed wings of this species were found scattered upon the ground near a hotel); American Scoter, 1; Pine Siskin, 15; Tree Sparrow, 20; Hermit Thrush, 1. Total, 7 species, about 500 individuals.—GEORGE E. HIX.

Central Park, New York City.—Time, 9.30 A. M. to 1 P. M. Weather partly cloudy; wind west; temp., 19° to 25°. Herring Gull, 35; Sharp-shinned Hawk, 1; Red-tailed Hawk, 1; Downy Woodpecker, 2; Starling, 38; Purple Grackle, 1; White-throated Sparrow, 13; Junco, 1; Song Sparrow, 1; Fox Sparrow, 1; Cardinal, 3; White-breasted Nuthatch, 4; Red-bellied Nuthatch, 1; Chickadee, 6. Total, 14 species, 107 individuals.—CHARLES H. ROGERS.

Central Park, New York City.—Time, 9 to 10.30 A. M., and 10.15 to 2.25 P. M. Fine the first time out, overcast the second time; ground bare; wind northwest, brisk; temp., 28°. Herring Gull, 200; Red-tailed Hawk, 1; Downy Woodpecker, 2; Starling, 37; Purple Grackle, 2; White-throated Sparrow, 14; Junco, 1; Song Sparrow, 2; Fox Sparrow, 1; Cardinal, 2; White-breasted Nuthatch, 2; Red-breasted Nuthatch, 1; Chickadee, 6; Robin, 1. Total, 14 species, 272 individuals.—GEORGE E. HIX.

Central Park, New York City.—December 26; time, 8.15 to 9.30 A. M.; 2.10 to 2.50 P. M. Weather fair; ground bare; light winds; temp., 40°. Herring Gull, 500 (estimated); Starling, 40; Chickadee, 5; White-breasted Nuthatch, 3; White-throated Sparrow, 12; Downy Woodpecker, 1; Cardinal, 2; Junco, 3; Purple Grackle, 2. Total, 9 species, 568 individuals.—MORTIMER D. LEONARD.

Central Park, New York City.—December 23; time, 10 A. M. to 12 M., and 2.30 to 4.30 P. M. Clear; ground bare; wind northwest; temp., 20°. Herring Gull, 150; Red-tailed Hawk, 1; Downy Woodpecker, 3; Starling, 20; Purple Grackle, 1; Chaffinch, 1; White-throated Sparrow, 25; Junco, 4; Song Sparrow, 4; Cardinal, 5; Brown Creeper, 3; White-breasted Nuthatch, 4; Red-breasted Nuthatch, 2; Chickadee, 8; Robin, 5. Total, 15 species, about 236 individuals.—R. E. STACKPOLE and CLINTON G. ABBOTT.

Van Cortlandt Park, New York City, and Yonkers, N. Y.—December 24; time, 10.30 A. M. to 12.30 P. M.; 2.30 to 4 P. M. Overcast most of the time; ground bare; wind high, northwest; temp., 12° to 18°. Herring Gull, 1 (over river); Downy Woodpecker, 4; Blue Jay, 8; Crow, 2; Starling, 3; Purple Finch, 2; White-throated Sparrow, 1; Tree Sparrow (three flocks), about 50; Junco, 20; Song Sparrow, 9; Brown Creeper, 1; White-breasted Nuthatch, 2; Chickadee, 6. Total, 13 species, 109 individuals.—F. HUBERTA FOOTE and ALICE R. NORTHROP.

Passaic, N. J.—Time, 10.15 A. M. to 12.15 P. M. Partly cloudy; ground bare; wind north, strong; temp., 22°. Downy Woodpecker, 1; Crow, 1; Starling, 18; Goldfinch, 1; Tree Sparrow, 31; Junco, 12; Brown Creeper, 4; White-breasted Nuthatch, 3; Chickadee, 9. Total, 9 species, 80 individuals.—GILBERT H. TRAFTON and EDWARD UEHLING.

Morristown, N. J.—December 22; time, 3 to 4.30 P. M. Light snow flurries; ground partly bare, with some patches of snow; wind northwest, moderate; temp., 36°. Red-shouldered Hawk, 1; Crow, 2; Redpoll, about 30 (one flock); White-throated Sparrow, 6; Tree Sparrow, 10; Junco, 12; White-breasted Nuthatch, 4; Chickadee, 10; Golden-crowned Kinglet, 14. Total, 9 species, 98 individuals.—R. C. CASKEY.

Princeton, N. J.—Time, 8.20 A. M. to 1.30 P. M., and from 3.20 to 5.20 P. M. Clear; ground bare; wind northwest, strong; temp., 15°. Red-shouldered Hawk, 1; Sparrow Hawk, 3; Hairy Woodpecker, 1; Downy Woodpecker, 7; Blue Jay, 1; American Crow, 28; Goldfinch, 36; White-throated Sparrow, 1; Tree Sparrow, 260; Junco, 90; Song Sparrow, 60; Cardinal, 18; Brown Creeper, 4; White-breasted Nuthatch, 2; Tufted Titmouse, 4; Chickadee, 1; Carolina Chickadee, 3; Golden-crowned Kinglet, 1. Total, 18 species, 521 individuals.—WILLIAM M. NORRIS, JR.

Newfield, N. J.—Time, 10 A. M. to 3.20 P. M. Cloudy in forenoon, clearing up at noon; ground bare; wind northwest, brisk; temp., 23° to 29°. Crow, 2; Meadowlark, 3; Song Sparrow, 2; Tree Sparrow, 30; Junco, 45; White-breasted Nuthatch, 1; Chickadee, 1; Robin, 1. Total, 8 species, 85 individuals.—WM. W. FAIR.

Moorestown, N. J.—Time, 6.10 to 7 A. M., 8 A. M. to 1.10 P. M., and 2.10 to 5.15 P. M. Clear; wind west-northwest, strong; temp., 25°. Herring Gull, 2; Marsh Hawk,

1; Red-tailed Hawk, 1; Sparrow Hawk, 3; Downy Woodpecker, 6; Blue Jay, 2; Crow, 500; Goldfinch, 5; White-throated Sparrow, 9; Tree Sparrow, 24; Junco, 18; Song Sparrow (singing) 21; Cardinal, 7; Carolina Wren, 1; Winter Wren, 1; Brown Creeper, 1; White-breasted Nuthatch, 2; Red-breasted Nuthatch, 2; Tufted Titmouse, 6; Chickadee, 4; Golden-crowned Kinglet, 7; Robin, 1. Total, 22 species, 624 individuals.—**WILLIAM B. EVANS.**

Philadelphia, Pa., Delaware River Meadows, Bridesburg and Frankford.—December 22; time, 9.30 A. M. to 2.30 P. M. Raining at start, afterward clear and overcast, ground bare and unfrozen; wind northwest, light; temp., 40°. Herring Gull, 20; American Merganser, 1; Red-tailed Hawk, 2; Red-shouldered Hawk, 2; Sparrow Hawk, 1; Hairy Woodpecker, 1; Northern Downy Woodpecker, 2; Northern Flicker, 2; American Crow, 175 (estimated); Fish Crow, 3; Meadowlark, 18; American Goldfinch, 13; White-throated Sparrow, 1; Tree Sparrow, 20; Field Sparrow, 1; Slate-colored Junco, 28; Cardinal, 1; Song Sparrow, 15; Swamp Sparrow, 1; Winter Wren, 1; Brown Creeper, 1; White-breasted Nuthatch, 1; Tufted Titmouse, 2 (singing); Black-capped Chickadee, 1; Golden-crowned Kinglet, 1; Robin, 1. Total, 26 species, about 315 individuals.—**RICHARD F. MILLER.**

Philadelphia, Pa.—Between Spring Garden Street bridge and the dam on the Schuylkill. Time, 12.45 to 1 P. M. Ground bare; wind cutting; temp., 32°. American Herring Gull, 1; American Merganser, 5; Red-breasted Merganser, 15; American Golden-eye, 1; American Crow, 2. Total, 5 species, 24 individuals. December 26 same flock contained about forty-five Red-breasted and fifteen American Mergansers, also five Golden-eyes.—**LEWIS S. GANNETT.**

Germantown and Fairmount Park, Pa.—Time, 8.45 A. M. to 1.30 P. M. Cloudy; ground bare; wind east, light; temp., 37°. Herring Gull, 4; American Merganser, 7; Downy Woodpecker, 3; American Crow, 25; American Goldfinch, 4; White-throated Sparrow, 8; Tree Sparrow, 14; Slate-colored Junco, 74; Song Sparrow, 4; Cardinal, 4; Carolina Wren, 2; Brown Creeper, 1; White-breasted Nuthatch, 2; Chickadee, 8. Total, 14 species, 160 individuals.—**ARTHUR F. HAGAR.**

Germantown, Pa. (about the Wissahickon, northeast of the town).—December 27; time, 9.45 A. M. to 1 P. M.; 3 to 4 P. M. Clear in morning; rainy in afternoon; wind west at first, veering about to east; temp., 35° to 50°. Sparrow Hawk, 1; Downy Woodpecker, 3; Hairy Woodpecker, 1; American Crow, 155 (flock of 127); Purple Grackle, 1; American Goldfinch, 51 (flock of 50); White-throated Sparrow, 14 (in two flocks); Tree Sparrow, 13; Junco, 45 (flock of 40); Cardinal, 1; Winter Wren, 2; Carolina Wren (heard, not seen); Brown Creeper, 1; Chickadee, 7; Golden-crowned Kinglet, 7. Total, 15 species, 302 individuals.—**LEWIS S. GANNETT.**

Radnor Township, Delaware County, Pa.—December 24; time, 1 to 5 P. M. Clear; ground bare; wind northwest to north, high; temp., 9° to 11°. Red-tailed Hawk, 1; Downy Woodpecker, 2; Crow, 1,000; Purple Finch, 1; White-throated Sparrow, 1; Tree Sparrow, 4; Junco, 1; Song Sparrow, 6; Cardinal, 5; White-breasted Nuthatch, 1; Black-capped Chickadee, 25; Golden-crowned Kinglet, 15. Total, 13 species, 1,061 individuals.—**JOHN S. PATTON and LEONARD S. PEARSON.**

Fairmount Park, Philadelphia, Pa.—December 26; time, 8.30 A. M. to 2.30 P. M. Clear most of the time; ground bare; wind northwest, high; temp., 30° at start, 33° on return. Herring Gull, 1; Red-tailed Hawk, 1; Red-shouldered Hawk, 1; Sparrow Hawk, 1; Downy Woodpecker, 8; Crow, 27; Purple Finch, 20; Goldfinch, 1; Tree Sparrow, 1; Junco, 75; Song Sparrow, 7; Cardinal, 10; Brown Creeper, 4; White-breasted Nuthatch, 2; Tufted Titmouse, 2; Black-capped Chickadee, 2; Golden-crowned Kinglet, 9. Total, 17 species, 172 individuals.—**LEONARD S. PEARSON.**

Berwyn, Pa.—Time, 10.30 A. M. to 12.45 P. M., and 2.15 to 4.30 P. M. Cloudy; ground bare; wind northwest, strong; temp., 21°. Downy Woodpecker, 1; Blue Jay, 2;

Crow, 90; White-throated Sparrow, 2; Tree Sparrow, 28; Junco, 77; Song Sparrow, 4; Winter Wren, 1; White-breasted Nuthatch, 1. Total, 9 species, 206 individuals.—JOHN B GILL.

Lititz, Pa. (Northern Lancaster County, Valley of the Hammer Creek.)—December 23; time, 10.45 A. M. to 5.15 P. M. Partly cloudy, with snow flurries; ground partly covered with snow; wind northwest, strong; temp., 19°. Ruffed Grouse, 1; Turkey Vulture, 3; Red-tailed Hawk, 2; Sparrow Hawk, 1; Downy Woodpecker, 7; Hairy Woodpecker, 2; Crow, 425; American Goldfinch, 2; Pine Finch, 7; Cardinal Grosbeak, 11; Tree Sparrow, 70; Song Sparrow, 3; Junco, 3; Brown Creeper, 2; White-bellied Nuthatch, 7; Black-capped Chickadee, 31; Tufted Titmouse, 12; Golden-crowned Kinglet, 4. Total, 18 species, 592 individuals.—HERBERT H. BECK.

Columbia, Pa.—Time, 9 A. M. to 12 M. Cloudy at first, clearing later; ground lightly covered with snow; wind west, medium; temp., 10°. Crow, 200; English Sparrow, 150; Tree Sparrow, 25; Junco, 20; Cardinal, 2; White-breasted Nuthatch, 1; Chickadee, 2. Total, 7 species, 400 individuals.—WM. M. FLANAGAN and WM. ROCHOW.

Kennett Square, Pa.—Time, 10 A. M. to 1.30 P. M. Northeast wind; sky overcast, a chilly, uncomfortable morning; temp., 20° to 25°. Turtle Dove, 7; Turkey Buzzard, 1; Red-tailed Hawk, 1; Sparrow Hawk, 1; Hairy Woodpecker, 1; Downy Woodpecker, 2; Crow, 6; Meadowlark, 5; Redpoll, 5; Cardinal, 1; Junco, 55; Tree Sparrow, 9; Goldfinch, 2; Song Sparrow, 3; White-breasted Nuthatch, 5; Tufted Titmouse, 2; Chickadee, 1; Golden-crowned Kinglet, 1. Total, 18 species, 108 individuals.—C. J. PENNOCK.

Radnor Township, Delaware County, Pa.—December 29, 1906; time, 9.30 A. M. to 1.15 P. M. Cloudy, ground bare; wind southwest; temp., 41°. Sparrow Hawk, 2; Hairy Woodpecker, 2; Downy Woodpecker, 3; Crow, 25; Meadowlark, 8; Purple Finch, 1; White-throated Sparrow, 2; Tree Sparrow, 25; Junco, 30; Song Sparrow, 8; Cardinal, 2; Brown Creeper, 1; White-breasted Nuthatch, 1; Chickadee, 3. Total, 14 species, 113 individuals.—ALFRED C REDFIELD.

Durham, N. C.—December 24, 1906; time, 1.30 to 4.00 P. M. Weather, fair; wind northwest, strong; ground bare; temp., 33°. Turkey Vulture, 20; Flicker, 1; American Crow, 8; American Goldfinch, 2; Field Sparrow, 25; Junco, 75; Cardinal Grosbeak, 3; Maryland Yellow-throat, 1; Carolina Wren, 2; Winter Wren, 1; Carolina Chickadee, 3; Golden-crowned Kinglet, 3. Total, 13 species, 194 individuals.—ERNEST SEEMAN.

Palma Sola, Fla.—South shore of Tampa Bay, on one small salt-water bayou, and in pitch pine and spruce woods. Clear; wind northwest. Loon, 2; Brown Pelican, 2; Louisiana Heron, 7; Little Blue Heron, 20 Semi-palmated Plover, 12; Ground Dove, 2; Belted Kingfisher, 1; Phoebe, 1; Red-winged Blackbird, 9; White-eyed Towhee, 3; Cardinal, 1; Blue-headed Vireo, 1; Myrtle Warbler, 35; Yellow-throated Warbler, 1; Pipe Warbler, 20; Mockingbird, 1; Blue-gray Gnatcatcher, 1. Total, 19 species, 127 individuals.—ELEANOR P. EARLE.

Palma Sola, Fla.—December 26, 1906. Wind north to northwest; temp. 40° to 55°. Florida Cormorant, 1; Brown Pelican, 6; Louisiana Heron, 11; Little Blue Heron, 20; a flock of about 40 shore-birds, too far away to be identified; Ground Dove, 2; Turkey Vulture, 3; Bald Eagle, 1; American Sparrow Hawk, 1; Belted Kingfisher, 1; Southern Downy Woodpecker, 1; Phoebe, 2; White-eyed Towhee, 1; Cardinal, 1; Blue-headed Vireo, 1; Myrtle Warbler, 60; Yellow-throated Warbler, 2; Pine Warbler, 30; Mockingbird, 1; Blue-gray Gnatcatcher, 2. Total, 20 species, 192 individuals.—ELEANOR P. EARLE.

Palma Sola, Fla.—December 28, 1906. American Egret, 6; Louisiana Heron, 6; Little Blue Heron, 20; Ring-neck Plover, 3; Least Sandpiper, 5; Ground Dove, 2; Turkey Vulture, 1; Bald Eagle, 1; Southern Flicker, 2; Phoebe, 2; Cardinal, 2; Towhee, 5; Yellow-throated Warbler, 5; Myrtle Warbler, 3; Loggerhead Shrike, 1; Mockingbird, 2; Blue-gray Gnatcatcher, 10. Total, 17 species.—CARLOS EARLE.

Knoxville, Tenn.—Time, 9 A. M. to 1 P. M. Clear; ground bare; wind north, light; temp., 28°. Hairy Woodpecker, 2; Crow, 9; Cardinal, 3; Wren, 1; Tufted Titmouse, 1; Bluebird, 12; unknown birds, 3. Total, 7 species, 29 individuals.—MAGNOLIA WOODWARD.

Lexington, Ky.—December 23. Time, 10 A. M. to 4.45 P. M. Two inches of snow; cloudy at start, changing to clear; wind brisk, north; distance about nine miles. Pied-billed Grebe, 1; Bufflehead, 10; American Coot, 1; Killdeer, 5; Marsh Hawk, 1; Red-tailed Hawk, 2; American Sparrow Hawk, 2; Short-eared Owl, 1; Hairy Woodpecker, 2; Red-bellied Woodpecker, 1; Flicker, 3; Horned Lark (about) 3,000; American Crow (about) 2,100; Meadow-lark, 33; Field Sparrow, 22; Slate-colored Junco, 36; Song Sparrow, 38; Cardinal, 8; Carolina Wren, 1; Winter Wren, 1; Carolina Chickadee, 3; Golden-crowned Kinglet, 11. Total, 22 species, about 5,282 individuals.—V. K. DODGE.

La Grange, Mo.—December 21; time, 9 A. M. to 12 M. One inch of wet, new fallen snow covering ground and trees; strong northwest wind; heavy clouds, threatening snow; temp., 30°. Green-winged (?) Teal, 5; Great Horned Owl, 1 (heard); Hairy Woodpecker, 2; Downy Woodpecker, 2; Red-bellied Woodpecker, 6; Blue Jay, 2; Crow, 6; Goldfinch, 6; Junco, 12; Cardinal, 13; White-breasted Nuthatch, 4; Tufted Titmouse, 14; Chickadee, 10. Total, 13 species, 83 individuals.

December 26, route, time, temperature, ground and clouds the same as before, but wind light, southeast. Sharp-shinned Hawk, 1; Hairy Woodpecker, 1; Red-bellied Woodpecker, 6; Flicker, 6; Blue Jay, 7; Crow, 7; Goldfinch, 150; Junco, 13; Cardinal, 8; Tufted Titmouse, 6; Chickadee, 23. Total, 11 species, 228 individuals.—SUSAN M. JOHNSON.

Waukon, Iowa.—Time, 9 A. M. to 1 P. M. Damp and cloudy A. M.; clearing P. M.; fresh south wind; temp., 30°. Hairy Woodpecker, 1; Blue Jay, 6; Crow, 3; Goldfinch, 3; Sparrow (species undetermined), 1; White-breasted Nuthatch, 1; Chickadee, 1. Total, 7 species, 16 individuals.—ELLISON ORR.

Cedar Rapids, Iowa.—Time, 8 to 10.15 A. M. Two inches of snow but thawing some; cloudy. Hairy Woodpecker, 2; Downy Woodpecker, 4; Red-headed Woodpecker, 1; Blue Jay, 3; Crow, 5; Tree Sparrow, 2; Brown Creeper, 1; White-breasted Nuthatch, 3; Chickadee, 31. Total, 9 species, 52 individuals.—E. LUCAS LEFEBURE.

Urbana, Ill.—Time, 9.45 A. M. to 12.30 P. M. Clear, ground covered with one inch of snow; wind southwest, strong; temp., 35°. Red-tailed Hawk, 1; northern Downy Woodpecker, 4; Red-bellied Woodpecker, 1; Flicker, 3; Blue Jay, 5; Crow, 4; Purple Finch, 5 (1 killed); Tree Sparrow, 38; Junco, 16; Song Sparrow, 1; White-breasted Nuthatch, 3; Black-capped Chickadee, 6. Total, 12 species, 87 individuals.—ALFRED O. GROSS and HOWARD A. RAY.

Atwood, Ill.—Time, 8 to 11.30 A. M. Cloudy; ground covered with one inch of crisp snow; wind northwest, light; temp., 22°. Northern Downy Woodpecker, 3; Red-bellied Woodpecker, 1; Flicker, 2; Blue Jay, 11; Crow, 150; Junco, 22; Tree Sparrow, 64; Song Sparrow, 8; Cardinal, 3; White-breasted Nuthatch, 4; Tufted Titmouse, 1; Black-capped Chickadee, 9. Total, 12 species, 278 individuals.—ALFRED OTTO GROSS.

Roby, Ill.—Time, 1.30 to 3.30 P. M. Clear, but hazy; ground and small lake here frozen and covered with thin layer of snow; wind southwest, light; temp., 32°. Bob-white, 3; Redpoll, 40; Tree Sparrow, 10; Slate-colored Junco, 5; Northern Shrike, 1; Chickadee, 2. Total, 6 species, 61 individuals.—CARL C. LAWSON.

Peoria, Ill.—Time, 10 A. M. to 3 P. M. Wind light, from south; temp., 28° to 31°. Cloudy; one inch of snow. Ring-billed Gull, 4; American Coot, 1; Quail, one flock; Downy Woodpecker, 14; Hairy Woodpecker, 7; Crow, 3; American Goldfinch, 11; Tree Sparrow and Junco, two flocks estimated, 275; Cardinal, 8; Brown Creeper, 6; White-breasted Nuthatch, 5; Chickadee, 27. Total, 13 species, 362 individuals.—W. H. PACKARD and C. S. VAN DEUSEN.

Desplains River Region, Ill.—December 24; time, 7.40 A. M. to 3.30 P. M. Trace of snow, cloudy; very light northwest to southwest wind; temp., 11° to 36°. Herring Gull, 7; Hairy Woodpecker, 1; Downy Woodpecker, 2; Blue Jay, 17; Crow, 12; Tree Sparrow, 21; Junco, 4; Cardinal, 2; Brown Creeper, 1. White-breasted Nuthatch, 1; Chickadee, 5. Total, 11 species, 73 individuals.—FRANK GATES, N. PARTRIDGE and R. H. GEBERDING.

Chicago, Ill., Glenco to Highland Park.—December 26; time, 7.30 A. M. to 12 M. Clear, becoming cloudy; wind southwest to south; temp., 21° to 40°. Loon, 1; Herring Gull, 8; Ring-billed Gull, 7; American Merganser, 4; Red-breasted Merganser, 15; Pintail Duck, 5; Lesser Scaup Duck, 50; Canada Goose, 7; Downy Woodpecker, 1; Blue Jay, 2; Crow, 18; Evening Grosbeak, 2; Junco, 3; Brown Creeper, 1; White-breasted Nuthatch, 1; Chickadee, 4; Golden-crowned Kinglet, 1. Total, 17 species, 130 individuals.—FRANK GATES.

Chicago, Ill., Graceland Cemetery to Evanston and Bowmanvil.—Time, 7 A. M. to 1 P. M. Cloudy, becoming clear; traces of snow on ground; light north wind; temp., 21° to 38°. Loon, 4; Herring Gull, 15; Ring-billed Gull, 2; American Merganser, 2; Pintail Duck, 1; Lesser Scaup Duck, 150; American Golden-eye, 7; Canada Goose, 22; Hairy Woodpecker, 1; Downy Woodpecker, 3; Prairie Horned Lark, 18; Blue Jay, 24; Crow, 12; Pine Siskin, 1 seen, others heard; Tree Sparrow, 50; Junco, 12; Cardinal, 1; Cedar Waxwing, 7; Brown Creeper, 3; Red-breasted Nuthatch, 3; White-breasted Nuthatch, 1; Chickadee, 12. Total, 22 species, 351 individuals.—FRANK GATES.

Chicago, Ill., Stickney District.—Time, 10.30 A. M. to 3.30 P. M. Clear; ground bare; a little snow in grass; wind west to southwest, light; temp., 33°. Prairie Hen (flock), 20; Sharp-shinned Hawk, 1; Prairie Horned Lark, 3; American Crow, 3; Tree Sparrow, 30. Total, 5 species, 57 individuals.—J. L. DE VINE.

Chicago, Ill., Jackson Park and Vicinity, District.—Time, 8 A. M. to 1 P. M. Cloudy and a dense fog, especially on lake, but clearing up toward noon; ground and lagoon frozen and covered with light coat of snow; lake full of floating ice; wind light, varying from northwest to southwest; temp., 30° to 32°. American Herring Gull, 15; Ring-billed Gull, 25; American Merganser, 18; Red-breasted Merganser, 8; American Golden-eye, 4; Screech Owl, 1; Downy Woodpecker, 2; Blue Jay, 4; Snowflake, 3; Lapland Longspur, 50; White-breasted Nuthatch, 1; Chickadee, 6. Total, 12 species, 137 individuals.—E. E. ARMSTRONG and CARL C. LAWSON.

Warren, Jo. Daviess Co., Ill.—Cloudy; wind southwest; trace of snow; temp., 38°. Ruffed Grouse, 1; Red-tailed Hawk, 2; Hairy Woodpecker, 2; Flicker, 2; Horned Lark, 2; Blue Jay, 13; Crow, 564; Goldfinch, 2; Junco, 12; White-breasted Nuthatch, 11; Chickadee, 20. Total, 14 species, 650 individuals.—[?] signature.

Moline, Illinois.—December 27; time, 10.30 to 11.30 A. M., on Arsenal Island in Mississippi River, and 2.15 to 3.30 P. M., on Bluffs of Rock River, four miles southwest.—Very cloudy; moist air; ground bare; wind northeast, light; temp., 35°.—Quail (Bobwhite), 6; Hairy Woodpecker, 4; Downy Woodpecker, 12; Red-bellied Woodpecker, 2; Blue Jay, 6; Crow, 3; Tree Sparrow, 4; Cardinal, 5; Junco flocks (estimated), 100; Brown Creeper, 2; White-breasted Nuthatch, 8; Chickadee, 12. Total, 12 species, about 164 individuals. December 16, a Sparrow Hawk, American Goldfinches and Golden-crowned Kinglets were seen, and on December 26 a flock of Blackbirds (Bronze Grackles) were seen on Rock River.—MRS. SLOAN, MRS. PUTNAM, MISS PUTNAM and MRS. AINSWORTH.

Rock Island, Ill.—Time, 10.30 A. M. to 12.30 P. M. Cloudy; light snow on ground; light southeasterly wind; temp., 32°; Mississippi River channel open. Ring-necked Duck, 2; Quail, 35; Barred Owl, 1; Crow, 1; Blue Jay, 1; Hairy Woodpecker, 2; Downy Woodpecker, 2; Snowbird, 30; Chickadee, 15; White-bellied Nuthatch, 2. Total, 10 species, 91 individuals.—BURTIS H. WILSON.

The Beach, Lake Co., Ill.—Sunny; light west wind; no snow; temp., 34°. American Herring Gull, 10; Snow Goose (?), 5; Downy Woodpecker, 1; Blue Jay, 5; Crow, 10; White-winged Crossbill, 1; American Goldfinch, 4; many unidentified Ducks on the Lake.—JOHN F. FERRY.

Youngstown, Ohio.—Time, 7 A. M. to 4 P. M. Cloudy; about six inches of snow, a little snow falling during forenoon, wind west; temp., 14° to 28°. Distance walked, seventeen miles. Quail, 4; Ruffed Grouse, 6; Red-tailed Hawk, 1; Broad-winged Hawk, 1; American Sparrow Hawk, 1; Barred Owl, 1; Great Horned Owl, 1; Hairy Woodpecker, 2; Downy Woodpecker, 2; Red-bellied Woodpecker, 3; Flicker, 5; Blue Jay, 3; American Crow, 1; Tree Sparrow, 50; Song Sparrow, 16; Cardinal, 1; Winter Wren, 2; White-breasted Nuthatch, 8; Red-breasted Nuthatch, 2; Tufted Titmouse, 14; Chickadee, 25. Total, 21 species, 149 individuals.—GEO. L. FORDYCE and REV. S. F. WOOD.

Cadiz, Ohio.—Time, 9.15 A. M. to 2.15 P. M. Snowing, with eight inches of snow on the ground; wind west, moderately strong; temp., 15° to 19°. Ruffed Grouse, 1; Red-tailed Hawk, 3; Sparrow Hawk, 1; Horned Owl, 1; Hairy Woodpecker, 2; Downy Woodpecker, 15; Yellow-bellied Sapsucker, 1; Red-bellied Woodpecker, 9; Flicker, 10; Junco, 50; Song Sparrow, 8; Cardinal, 11; Carolina Wren, 2 (singing); White-breasted Nuthatch, 12; Tufted Titmouse, 4; Chickadee, 8; Robin, 1; Bluebird, 5 (singing). Total, 18 species, 144 individuals. On December 17, a farmer living near Cadiz shot a Black Vulture under the impression that it was a Hawk. He brought it to me to identify. This is a very unusual record for eastern Ohio.—HARRY B. McCONNELL.

Richmond, Indiana.—Time, 7.30 A. M. to 1 P. M. Wind northwest; four inches snow temp., 8°. Mourning Dove, 1; Kingfisher, 1; Downy Woodpecker, 5; Red-bellied Woodpecker, 1; Flicker, 5; Blue Jay, 5; Crow, abundant; Bronzed Grackle, 15; Goldfinch, 4; Tree Sparrow, abundant; Junco, abundant; Song Sparrow, abundant; Cardinal, 24; Brown Creeper, 1; White breasted Nuthatch, 8; Tufted Titmouse, abundant; Chickadee, abundant. Total, 17 species.—L. GANO and LUCY V. B. COFFIN.

Greenville, Floyd Co., Indiana.—Time, 10.30 to 11 A. M., and 2 to 3.30 P. M. Ground partly covered with snow; wind northwest, light, fair; temp., 40°. Buzzard, 1; Red-bellied Woodpecker, 1; Red-headed Woodpecker, 1; Downy Woodpecker, 14; Blue Jay, 7; Crow, 16; Cardinal, 5; Junco, 23; Song Sparrow, 6; Carolina Wren, 4; Crested Titmouse, 13; Carolina Chickadee, 5. Total, 12 species, 96 individuals.—MRS. CHARLES NORMAN.

Port Sanilac, Michigan.—December 28; time, 10.30 A. M. to 12.30 P. M. Cloudy; two to six inches snow; southwest wind, light; temp., 32° to 34°. American Merganser (?), 2; Crow, 6; White-winged Crossbill, 22; Chickadee, 4. Total, 4 species, 34 individuals.—ETHEL B. CHASE, HERBERT T. THOMSON, HARRIET W. THOMSON.

Detroit, Mich.—Time, 10.15 to 11.45 A. M. Cloudy; three inches of snow; wind northwest, light; temp., 20°. Location, Belle Isle in Detroit River. White-breasted Nuthatch, 24; Chickadee, 14; Red-headed Woodpecker, 4; Goldfinch, 5; Crow, 2; Herring Gull, 7; Pied-billed Grebe, 2 (flying southward). Total, 7 species, 59 individuals.—JEFFERSON BUTLER.

Elkhorn, Wis.—December 23; time, 2 to 4 P. M. Clear, sunshine; ground partly covered with snow; wind northwest, light; temp., about 50°. December 26; time, 9 to 11 A. M. Sunshine, snow in places; wind southwest, light; temp., about 40°. Downy Woodpecker, 2; Blue Jay, 16; Crow, 10; Redpoll, 70 (approximately); White-breasted Nuthatch, 6; Red-breasted Nuthatch, 1; Chickadee, 5. Total, 7 species, about 110 individuals. Our lunch-counter is visited daily by one Hairy and two Downy Woodpeckers, several Blue Jays, two White-breasted Nuthatches, one Red-breasted Nuthatch, and three Chickadees.—MABEL F. BECKWITH, CONSTANCE BECKWITH and SARAH FRANCIS.

Milwaukee, Wis.—December 24; time, 9 A. M. to 3 P. M. Clear, sunshiny; ground bare; wind north, very light; temp., 15° at 8.30 A. M. Herring Gull, 12; Ducks, 214, chiefly Bufflehead, American Golden-eye, and American Scaup; Downy Wood-

pecker, 3; Crow, 3; Tree Sparrow, 7. Total, 5 species, 237 individuals.—I. N. MITCHELL, W. H. CHUVER and E. C. CASE.

Lake Minnetonka, Minn.—(Twenty miles west of Minneapolis.) Brief observations between 12 M. and 2 P. M. Clear, light southeast wind; no snow; temp., 30°. Downy Woodpecker, 1; Blue Jay, 3; Pine Grosbeak, 10; American Goldfinch, 5; Brown Creeper, 2; White-breasted Nuthatch, 4; Chickadee, 5. Total, 7 species, 30 individuals. Nearly all seen at one spot in the woods where I had placed a supply of beef suet on Thanksgiving Day. Grosbeaks very tame; could almost touch them.—E. F. PABODY, JR.

Red Wing, Minn.—Time, 8 A. M. to 1.45 P. M. Slightly cloudy; about two or three inches of snow; wind southeast, moderate; temp., 21° to 27°. Bob-white, 16; Hairy Woodpecker, 1; Blue Jay, 23; American Goldfinch, 60; Tree Sparrow, 4; Junco, 18; Cedar Waxwing, 6; White-breasted Nuthatch, 7; Brown Creeper, 1; Chickadee, 17. Total, 10 species, 153 individuals.—CHARLES PHILLIPS and NELS. BORGES.

Minneapolis, Minn.—Time, 8 A. M. to 12 M. Partly cloudy, ground nearly bare; wind southeast, light; temp., 30°. Quail, 5; Downy Woodpecker, 1; Blue Jay, 2; Goldfinch, 9; Brown Creeper, 1; White-breasted Nuthatch, 2; Chickadee, 5. Total, 7 species, 25 individuals.—HENRIETTA JORDAN and EDWIN C. BROWN.

Minneapolis, Minn.—Time, 11 A. M. to 4 P. M. Cloudy; ground nearly bare; wind northwest, strong; temp., about 35°. Bob-white, 5; Downy Woodpecker, 2; Blue Jay, many; Redpoll, 4; American Goldfinch, 8; Snowflake, 3; Brown Creeper, 2; White-breasted Nuthatch, many; Chickadee, 10. Total, 9 species, about 50 individuals.—KENWOOD BIRD CLUB.

Murdock, Minn.—Time, 9 to 10 A. M. Clear; one inch of snow; no wind; temp., about 38°. Prairie Horned Lark, 20; Goldfinch, 2; Tree Sparrow, 7; Chickadee, 6. Total, 4 species, 35 individuals.—ALBERT A. THOMPSON.

Kolls, Lyman County, S. D.—Time, 11.30 A. M. to 4.30 P. M. Cloudy; ground covered with snow; light south wind. Prairie Sharp-tailed Grouse, 14; Black-billed Magpie, 4; Redpoll, about 150; Chickadee, 1. Total, 4 species, about 170 individuals.—ADRIAN LARSON.

Edmonton, Alberta, Canada.—Time, 8 A. M. to 4 P. M. Clear; thirty inches snow; wind south; temp., 20°. American Goshawk, 3; Ferruginous Rough-leg Hawk, 6; Golden Eagle, 1; American Hawk Owl, 7; Hairy Woodpecker, 2; Canada Jay, 10; American Raven, 1; American Crow, 12; Pine Grosbeak, 4; Snowflake, 100; Chickadee, 100. Total, 11 species, 246 individuals.—SIDNEY S. S. STANSELL.

Okanagan Landing, B. C.—December 29; time, 7.30 A. M. to 2.30 P. M. Fine; five inches of snow; calm; temp., 20° at 7 A. M. Western Grebe, 1; Holbøll's Grebe, 1; Horned Grebe, 2; Greater Scaup (duck), 120; American Golden-eye, 2; Bufflehead, 5; Herring Gull, 3; Columbian Sharp-tailed Grouse, 5; Ruffed Grouse, 3; Northern Hairy Woodpecker, 1; Cabanis' Woodpecker, 1; Red-shafted Flicker, 4; Magpie, 12; Western Evening Grosbeak, 1; Pine Grosbeak, 25; Rusty Song Sparrow, 2; Western Meadowlark, 1; Slender-billed Nuthatch, 2; Red-bellied Nuthatch, 1; Long-tailed Chickadee, 7; Mountain Chickadee, 2; Great Northern Shrike, 1; Townsend's Solitaire, 1. Total, 23 species, 203 individuals.—ALLAN BROOKS.

Vernon, B. C.—December 26. Cloudy; wind southwest; three inches of snow; temp., 23° at 7 A. M. Northern Golden-winged Flicker, 2; Red-shafted Flicker, 3; Clarke's Nutcracker, 1; Magpie, 8; Pine Grosbeak, 7; Shufeldt's Junco, 7; Rusty Song Sparrow, 5; Mealy Redpoll, 60; Western Meadowlark, 6; Kingfisher, 1. Total 10 species, 100 individuals.—ALLAN BROOKS.

La Cañada, Los Angeles County, Cal.—Time, 10 A. M. to 4 P. M. Cloudy; no perceptible wind; temp., 78° to 80°. Red-breasted Sapsucker, 1; Red-shafted Flicker, 2; Black Phoebe, 6; California Jay, 2; House Finch, 6; Goldfinch, White-crowned Sparrow, Golden-crowned Sparrow, large flocks; Thurber Junco, 6; California Towhee, 26; Audubon Warbler, large flocks; Western Mockingbird, 8; California Thrasher, 2; Vigor's Wren, 5; Western Robin, 45. Total, 15 species, 108 individuals.—MINNIE K. ANDERSON.

The Migration of Thrushes

FIRST PAPER

Compiled by Professor W. W. Cooke, Chiefly from Data
in the Biological Survey

With drawings by LOUIS AGASSIZ FUERTES and BRUCE HORSFALL

WE believe that all field-students of American birds will endorse the statement that few ornithological papers have been published possessing greater enduring interest and value than those on the 'Migration of Warblers' which Professor Cooke has prepared for BIRD-LORE. We have, therefore, special cause for congratulation that, with the kind permission of the Biological Survey, Professor Cooke has consented to treat other groups of birds in the same equally thorough manner.—ED.

WOOD THRUSH

SPRING MIGRATION

PLACE	No. of years' record	Average date of spring arrival	Earliest date of spring arrival
<i>Atlantic Coast—</i>			
Northern Florida	3	April 26	Once in winter
Atlanta, Ga. (near)	12	April 9	April 3, 1893
Raleigh, N. C.	15	April 16	April 10, 1893
Variety Mills, Va.	13	April 28	April 17, 1896
Washington, D. C.	14	April 26	April 19, 1891
Beaver, Pa.	5	April 25	April 22, 1889
Germantown, Pa.	6	May 1	April 30, 1890
Englewood, N. J.	11	May 1	April 26, 1900
Roslyn, N. Y.	6	May 1	April 29, 1894
Shelter Island, N. Y.	9	May 7	May 1, 1891
Ballston Spa., N. Y.	10	May 8	May 3, 1896
Hartford, Conn.	6	May 7	May 3, 1892
Providence, R. I.	8	May 8	May 3, 1905
Eastern Massachusetts	20	May 6	May 1, 1899
<i>Mississippi Valley—</i>			
New Orleans, La.	13	March 31	March 25, 1900
Helena, Ark.	10	April 13	April 6, 1896
Eubank, Ky.	9	April 16	April 10, 1893
St. Louis, Mo.	3	April 19	April 19, 1886
Wauseon, Ohio	10	April 29	April 24, 1886
Petersburg, Mich.	12	April 29	April 23, 1891
Plymouth, Mich.	8	May 1	April 25, 1897
Chicago, Ill.	12	May 3	April 28, 1897
Southwestern Ontario	14	May 4	April 30, 1899
Muskoka District, Ont.	6	May 13	May 8, 1899
Ottawa, Ont.	6	May 10	May 6, 1905
Keokuk, Iowa	10	April 30	April 20, 1896
Hillsboro, Iowa (near)	11	April 30	April 23, 1897
Central Iowa, 41° 40' lat.	19	May 2	April 26, 1902
Sabula, Iowa	8	May 1	April 28, 1892
Lanesboro, Minn.	8	May 5	May 1, 1892
Minneapolis, Minn. (near)	11	May 8	May 3, 1904
Northeastern Texas	2	April 18	April 16, 1891
Manhattan, Kans.	6	April 28	April 22, 1885
Onaga, Kans.	10	May 5	April 28, 1891
Southeastern Nebraska	8	April 27	April 25, 1897



1. WOOD THRUSH.

2 AND 3. WILSON'S THRUSH.

The date of May 6 in eastern Massachusetts is based on the notes of twenty-four observers in eleven towns in Massachusetts east of the Connecticut; the date of May 2 at $41^{\circ} 40'$ latitude in Iowa is from the records of twenty-two observers in eleven towns.

FALL MIGRATION

PLACE	No. of years' records	Average date of last one seen	Latest date of last one seen
Lincoln, Neb.			September 15, 1900
Onaga, Kans.	7	August 1	August 26, 1894
Lanesboro, Minn.	4	September 14	September 19, 1888
Central Iowa	12	September 18	October 6, 1887
Chicago, Ill.	4	September 15	September 22, 1900
Southwestern Ontario	5	September 11	October, 9, 1905
Wauseon, Ohio	7	September 17	September 27, 1895
Waterloo, Ind.	6	September 15	September 28, 1891
New Orleans, La.	3	October 14	October 18, 1903
Melrose, Mass.			September 16, 1899
Providence, R. I.			September 22, 1904
Croton-on-Hudson, N. Y.	3	October 5	October 6, 1891
Englewood, N. J.	4	October 3	October 7, 1885
Beaver, Pa.	7	October 2	October 8, 1890
Germantown, Pa.	5	October 6	October 11, 1887
French Creek, W. Va.	3	October 7	October 12, 1891
Raleigh, N. C.	4	October 11	October 16, 1885
Southern Florida	2	October 12	October 13, 1885

WILSON'S THRUSH

SPRING MIGRATION

PLACE	No. of years' records	Average date of spring arrival	Earliest date of spring arrival
<i>Atlantic Coast—</i>			
Key West, Fla.			April 28, 1887
Northern Florida	2	May 9	May 8, 1903
Raleigh, N. C.	9	May 1	April 27, 1893
French Creek, W. Va.	4	May 3	April 28, 1891
Washington, D. C.	8	May 1	April 26, 1891
Englewood, N. J.	10	May 2	April 27, 1900
Ballston Spa, N. Y.	8	May 7	May 3, 1905
Hartford, Conn.	7	May 4	April 29, 1891
Eastern Massachusetts	20	May 7	May 4, 1904
St. Johnsbury, Vt.	6	May 10	May 5, 1886
Durham, N. H.	3	May 15	May 11, 1900
Southern Maine	9	May 17	May 12, 1900
Scotch Lake, New Brunswick	2	May 21	May 20, 1904
Montreal, Can.	6	May 16	May 11, 1889
Quebec City, Can.	4	May 15	May 14, 1898

SPRING MIGRATION, continued

PLACE	No. of years' records	Average date of spring arrival	Earliest date of spring arrival
<i>Mississippi Valley—</i>			
New Orleans, La.	4	April 19	April 14, 1905
Helena, Ark.	5	April 25	April 18, 1904
Wauseon, Ohio	6	May 1	April 28, 1894
Plymouth, Mich. (near)	12	May 2	April 26, 1897
Southwestern Ontario	15	May 5	May 2, 1900
Toronto, Ont.	8	May 6	May 2, 1898
Ottawa, Ont.	15	May 13	May 5, 1902
Grinnell, Iowa	5	May 8	May 5, 1885
Lanesboro, Minn.	9	May 9	May 5, 1890
Aweme, Manitoba	8	May 15	May 11, 1904

The date of spring arrival, May 7, for eastern Massachusetts is obtained by selecting the earliest dates, as contributed during a series of twenty years, 1886-1905, by twenty observers located in thirteen different towns in Massachusetts east of the Connecticut river. No measurable difference can be noted in the time of arrival at Springfield and at Boston or in the intervening districts. Treating the notes from these thirteen towns as if they had been contributed from one locality, the record of the first one seen is so uniform that it will be given in full. All the dates of the first one seen are in May and are for consecutive years, beginning with 1886: May 8, 7, 6, 9, 8, 11, 7, 7, 10, 7, 4, 7, 8, 6, 9, 6, 7, 9, 4, 5, average May 7. If the average date of the first one seen had been calculated for each town separately and then an average made of the resulting averages, the date of May 9 would have been obtained for the final average instead of May 7.

FALL MIGRATION

The average date of the first one seen in the fall in southern Mississippi is September 14, and at Raleigh, N. C., September 5. The first was noted at Lexington, Ky., September 3, 1905; St. Mary's, Ga., September 13, 1905; Tallahassee, Fla., September 11, 1904; northern coast of South America, October 5, 1900; central Brazil, November 4, 1882.

PLACE	No. of years' records	Average date of last one seen	Latest date of last one seen
Aweme, Manitoba	6	August 27	September 4, 1903
Chicago, Ill.	4	September 6	September 27, 1903
Waterloo, Ind. (near)	4	September 12	September 22, 1887
Wauseon, Ohio	7	September 16	September 25, 1895
Lexington, Ky.	2	September 24	September 27, 1903
Bay St. Louis, Miss.			October 11, 1898
New Orleans, La.			October 17, 1903
Englewood, N. J.	3	September 16	September 20, 1885
Germantown, Pa.	2	September 16	September 19, 1890
Tallahassee, Fla.			October 9, 1904

Oölogy as a Science

To the Editor of BIRD-LORE:

It is rather curious that neither Professor Montgomery, who attacks the "egg collector," nor Mr. Sharples, who defends him, should have mentioned von Nathusius, who made a careful study of the microscopical structure of egg-shells and obtained some highly interesting results. He, at least, pursued oölogy as a science. J. A. Ryder studied the relations of the shape of eggs to that of the birds that laid them, and elaborated a theory to account for the various forms of eggs. The pigmentation and character of the pigment have also been the subjects of more or less research, and an English naturalist has made long and careful observations on the eggs of the Murre from which he seems to have learned much.

Of course, the average egg-collector is that and nothing more, but has the *average* collector of bird skins any higher claim to being a "scientist"? How many collectors of anything, in fact, from cigar wrappers to old masters, collect with any really intelligent purpose, any aim more definite than to accumulate a number of objects whose possession gives them pleasure, all the greater because their neighbors do *not* have them?

Collecting skins and eggs of the Great Auk comes dangerously near being just as much of a fad as collecting stamps; in some cases it is possibly more of a fad, for there are stamp-collectors with definite aims and purposes. The eggs of the humble and multitudinous English Sparrow have yielded more important results than the highly prized and expensive eggs of the aristocratic Great Auk. To secure a skin of the Labrador Duck would fill the recipient with boundless joy, and yet, from a strictly scientific standpoint, it is not a whit more valuable than one of the Old Squaw. One yields precisely the same amount of information as does the other, neither more, nor less. The Dodo is not important because it is extinct and rare, but because it is a highly aberrant member of the Pigeon family and a magnificent example of the effects of isolation and environment.

Supposing that the eggs in the cabinets of collectors had developed into embryos, would the world have been the wiser? How many eggs have been wasted by embryologists and thus prevented from developing into chickens and thereby contributing to the sustentation of mankind?

Years ago Alfred Newton came forward to defend the egg-collector before a parliamentary commission, and recently Mr. Brewster rose in his behalf before the A. O. U.; and, while this note is not to be taken too seriously nor to be considered as a defence of indiscriminate egg-collecting, it may perhaps show that in proper hands it may be capable of yielding good results. For it is not the thing, but the manner in which it is used, that counts.—F. A. LUCAS.

The Question of the Amount of Science in Oölogy

To the Editor of BIRD-LORE:

Two replies have been made to my article on this subject in this magazine of the May-June issue, and I would ask a little space for a return of courtesies.

Mr. R. P. Sharples (BIRD-LORE, September-October), in admitting his ignorance of the names and works of the great embryologists named by me, presents an example of the general lack of knowledge among oölogists of biological thought. He is also mistaken in considering embryology to be a branch of oölogy, for the former subject comprehends all the stages of the organism from the egg and the spermatozoön up to the adult, and had been studied for some three centuries before the term oölogy came into use. One might as well say that a gable upon a house supports the house! Then, in answer to his question, I would reply that I know the works of Davie and Bendire, and am aware that the latter is of great importance; that I have had a slight personal acquaintance with Warren, and high esteem for his services in securing protection for the Hawks and Owls; and that for Baird I have always felt a great admiration, and would point out that his fame rests largely upon his studies in comparative anatomy and geographical distribution, particularly of the fishes and amphibians. It is not quite fair to allude to me by innuendo as one who has no field acquaintance with birds, because from my ninth to my eighteenth year I spent most of my time collecting and observing birds near the very town in which Mr. Sharples resides, and my collections of skins are in two of the Philadelphia museums.

The writer of the editorial in 'The Condor,' November number, exhibits a broader point of view. But he is hardly correct in his statement "that the vast bulk of the work of embryologists, morphologists and systematists is mere cataloguing of the structures of animals and plants." Embryology alone has built up the following important conclusions: that the adult is formed by a gradual differentiation, by an interaction of inherent energies and environmental stimuli; that the species is as much marked in the egg as in the adult stage; that all problems of heredity come down to an understanding of the energies of the germ-cells, as also does sex-determination; that it is probable that the mystery of variations will be solved by the analysis of individual development; that the adult cannot be comprehended without an understanding of its growth; and here many other great conclusion might be mentioned were the space at my command not limited.

Systematists and morphologists in coöperation have given us the theory of evolution, the meaning of division of labor and polymorphism, the idea of homologies, etc. These results would have been impossible with a simple cataloguing of facts; they depend on far-reaching generalization. But oölogy, the collecting and study of dead egg-shells, what ample generalization has it given us? None at all, and, therefore, it is not science and cannot be

considered to have reached the scientific stage. To be sure, many of our major theories remain to be tested, but it is scientific work that generalizes, then tests the theories.

It is a pleasure to agree with both my critics that many subjects are associated with oölogy that are of enjoyment and scientific profit. The searching for nests furnishes keen delight and is a most wholesome and refreshing occupation; but, though it be all this and more, can it be called scientific? If oölogists will only recognize that it is not scientific, I will have no disagreement with them. The study of the nesting habits is, in my opinion, one of the most suggestive lines of ornithological inquiry, for habits and instincts are matters much more complex than any structures, and of fundamental value for understanding the course and factors of evolution. Most vigorously this study should be prosecuted. Here my critics have both missed the point, for my whole argument was directed to show that the collecting and preservation of dead egg-shells is the quest that in my opinion has so far proved to be without scientific value. To put it in other words: whatever observations ornithologists make with regard to habits and acts of intelligence, may well serve as a basis for scientific induction; but the collection of dead egg-shells is barren of scientific spirit, and result. Alfred R. Wallace and Lloyd Morgan have opened the inquiry into avian architecture, but I doubt much whether most American oölogists are acquainted with their writings.—THOMAS H. MONTGOMERY, JR.



SAW-WHET OWL

Photographed from nature by A. W. Honywill, New Haven, Conn., March 25, 1906

Bird-Lore's Advisory Council

WITH some slight alterations and additions, we reprint below the names and addresses of the ornithologists forming BIRD-LORE'S 'Advisory Council,' which were first published in BIRD-LORE for February, 1900.

To those of our readers who are not familiar with the objects of the Council, we may state that it was formed for the purpose of placing students in direct communication with an authority on the bird-life of the region in which they live, to whom they might appeal for information and advice in the many difficulties which beset the isolated worker.

The success of the plan during the six years that it has been in operation fully equals our expectations; and from both students and members of the Council we have had very gratifying assurances of the happy results attending our efforts to bring the specialist in touch with those who appreciate the opportunity to avail themselves of his wider experience.

It is requested that all letters of inquiry sent to members of the Council be accompanied by a stamped and addressed envelope for use in replying.

NAMES AND ADDRESSES OF MEMBERS OF THE ADVISORY COUNCIL

UNITED STATES AND TERRITORIES

- ALASKA.—Dr. C. Hart Merriam, Biological Survey, Dept. of Agr., Washington, D. C.
ARIZONA.—Herbert Brown, Yuma, Ariz.
CALIFORNIA.—Charles A. Keeler, Calif. Acad. Sciences, San Francisco, Calif.
COLORADO.—Dr. W. H. Bergtold, 1460 Clayton Ave., Denver, Col.
CONNECTICUT.—J. H. Sage, Portland, Conn.
DELAWARE.—C. J. Pennock, Kennett Square, Pa.
DISTRICT OF COLUMBIA.—Dr. C. W. Richmond, U. S. Nat'l Mus., Washington, D. C.
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Bird-Lore

A Bi-monthly Magazine

Devoted to the Study and Protection of Birds
OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Edited by FRANK M. CHAPMAN

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Bird-Lore's Motto:

A Bird in the Bush is Worth Two in the Hand

VARIOUS causes beyond our control have necessitated a change in the order of publication of the plates of Thrushes as announced in the last issue of BIRD-LORE. The Wood Thrush and Wilson's Thrush appear in this number, the Robin will be given in April, and in June the Hermit, Olive-backed and Gray-cheeked Thrushes will be published. Dr. Dwight will supply maps to accompany the last-named birds, showing the nesting ranges of their numerous races.

It will doubtless interest BIRD-LORE's readers to know that the bust of Audubon recently unveiled at the American Museum of Natural History, and which is figured in this issue, was based solely on the print of the Cruikshank portrait published by BIRD-LORE some years ago.

WE publish in this number of BIRD-LORE two additional communications in regard to the subject of egg-collecting, and the editor of 'The Condor' contributes a page to the same controversy in the November-December, 1906, issue of that journal.

None of the disputants, however, mention what, as we have frequently stated, seems, to our mind, to be the most deplorable result of egg-collecting, namely: that in robbing a bird of its eggs we are robbing ourselves of an opportunity to study it during the most interesting part of its life.

The editor of 'The Condor' extols what he terms the "recreation phase" of egg-collecting, and in California, the home of 'The Condor,' one may find some admirable

examples of 'oölogists' to whom egg-collecting is primarily a recreation, and very readable indeed are their often thrilling stories of how 'rare takes' were made. But if one is in search of information in regard to the nesting habits of California birds, he will pass by these tales of adventure, attractive though they be, for the records of definitely directed field work by an ornithologist who went to California for the express purpose of studying the home-life of California birds, and wisely, therefore, left their eggs where they were found.

The controversy, after all, is more or less academic. A comparison of present conditions with those which existed twenty-five years ago shows how much a thing of the past egg-collecting has become. Nor is the change surprising. As long as there was anything to learn or to record from a gathering of birds' eggs, their collecting was encouraged. But, when collecting brought only duplication and the gratification of the desire for acquisition, it was discouraged and the collector discountenanced. Meanwhile more stringent bird-protective laws have rendered increasingly difficult that trading and trafficking in birds' eggs which has ever been the mainstay of egg-collecting; and every one should rejoice that, in North America at least, we have passed the day when a mere hoarder of egg-shells might pose as one of its exponents.

THE 'Warbler Book' is so directly the offspring of BIRD-LORE, we are sure BIRD-LORE's readers will be interested to learn that, if all goes well, it will leave the printer's hands sometime in February. The book has required just one year more time to prepare than we had anticipated, but we hope is one year better!

Frankly, if we had known of the amount of work involved in preparing a book of this kind, we should have turned a deaf ear to those who induced us to undertake it. It is one thing to place on record what you yourself know about a given subject, but quite another to record also what everyone else has written concerning it; and we have tried to make the Warbler Book reflect existing knowledge of North American Mniotiltidæ.

The Audubon Societies

SCHOOL DEPARTMENT

Edited by MABEL OSGOOD WRIGHT

Address all communications to the Editor of the School Department, National Association of Audubon Societies, 141 Broadway, New York City

FEBRUARY

When autumn is over, with all the excitement and confusion of the great bird flight southward, we pause, draw a long breath and turn toward the score of patient winter residents with positive relief. Now, at last, we have time to meet them face to face and enjoy their individuality.

In December, if it be mild, we are often surprised by the lingering of some belated migrant. This year an Orchard Oriole, a bird that should leave us in September, hovered about the old apple trees near the house feeding upon some frosted fruit that still clung to their branches, the flesh of discarded pumpkins, or else upon the berries of the porch honeysuckle vines, in the shelter of which he roosted nightly until the 16th of the month, a particularly sunny day, during which he left the neighborhood.

During January, any one who is much abroad will have grown accustomed to the residents of his neighborhood,—the Woodpeckers, Downy and Hairy, and the substantial Flicker, who has hewn him a home for all seasons under the ventilator of the hay-barn or, maybe, in the cupola of your house itself; the Nuthatches, Finches, Gold and Purple, the Meadowlark of the fields, the Crow and his cousin the Blue Jay, the Chickadee and the Myrtle Warbler.

The various Owls and Hawks will have passed in review, claiming attention either by power of voice or wing. The Brown Creeper and Winter Wren will have become so familiar that we forget that they are merely visitors together with the Tree Sparrow, Junco, Shrike and Golden-crowned Kinglet.

Comes February, the suspension bridge between winter and spring. We may be unconscious that we have left the mainland of winter and are facing the opposite shore of promise, yet so it is.

The landscape round about is more dreary than at any previous time since leaf-fall. The snow has pulled away from the soft drapery it first formed and lies crusted and hard under foot; its glare hurts the eyes. This is the 'Coon Moon' of the Indian calendar, when, emerging from his hole, this wary beast feels that he can find sure footing for his peregrinations, but, to my thinking, in this latitude, at least, February should wear the title the Redman gave to March—'The Moon of Snow Blindness.'

The days have already lengthened an hour, at least, and what do they

bring? With the first half of the month, come the tardy winter visitors that have exhausted their more northerly feeding-grounds; the last half, after the upward curve of the span has been reached, and one steps quicker, a straggling advance guard of spring appears—the armorer, with his creaking and filing of metal; the bugler, the minstrel and his more silent brother the poet—the Grackle, the Redwing, the Robin and the Bluebird.

Last week I heard a nature-loving friend say: "February is the poorest month of the season out-of-doors; every year when it comes I wish that I might curl up and sleep like a woodchuck or bear. It is merely a twin of January and the rougher and more monotonous of the pair."

This may or may not be, according to the chance of the particular season. For myself, February has always been a month of surprises. In February I can quite surely count upon seeing the lovely brown and white Snowflake in company with dainty Redpolls in the field of wild grasses yonder. The Crossbills and Pine Grosbeaks will visit the spruce knoll that has had never a glimpse of them all winter. After a northeasterly snow flurry I scan the marsh meadows hopefully for the great Snowy Owl, and I find the Horned Lark and Lapland Longspur, or his telltale tracks, about the hayricks and waste fields behind the shore huts. But best of all, after that central curve has been rounded, is the first bit of spring color that tinges breast and pinions as wings flutter through the bare trees and alders—ruddy breast of Robin, azure spread of Bluebird and russet cloak of Song Sparrow. "Yes," but perhaps you say, "I have seen these birds in every winter month."

Surely, so there have been days and sunrises and sunsets in every month of winter, but not the same as that day and the sunset thereof when, hearing a scrap of rapid, insistant, half-nervous song, we rush out bareheaded and find a Robin sitting alone, trying his throat. Not the winter wanderer, ill plumed, scantily fed and anxious, darting hither and thither like a great wind-blown leaf; but the Robin who, in the far South, has felt the glow of spring, and its impulse has bid him venture forth and proclaim it ahead of his fellows. And faintly, afar on the air, comes a purling call; nearer and nearer it grows until sound takes shape bearing the sky colors of a calmer, milder clime than the one to which it has returned with the anxious expectancy of one glad to be at home again. Ah! we should love and speak well of February, since before it ends its brief days it often gives to us the joyful braggart Redwing; the Robin, that sings to the ear; the Song Sparrow, that speaks to the silent places of the soul, and the Bluebird, that quickens the beating of the heart.

M. O. W.

THE AUDUBON SCHOOL LEAGUE SPECIAL ANNOUNCEMENT

One of the principal objects of the National Association of the Audubon Societies is to encourage the teaching and study of birds in the schools. To

this end, it desires to assist teachers by supplying them with material suitable for their uses and by stimulating the interests of their pupils.

Consequently it is proposed to form an Audubon School League, membership in which, shall be open to all boys and girls of sixteen years and under who successfully take part in the competitions arranged by the Society.

These competitions will be in the form of essays, the subjects for which will be announced in each issue of BIRD-LORE. The first essay will be in the form of a life-history of the Bluebird. This biography should tell of the Bluebird's range, or geographic distribution, of its migrations, of its nesting habits, its notes, its food, and should include particularly the results of personal observations. No fact connected with the bird's habits should be considered too insignificant to receive attention, and each biographer should write as though nothing had ever been published about the Bluebird before.

Each biography should be divided under the main headings given above, with such additions or sub-headings as prove to be required, and should be accompanied by a colored outline of the Bluebird and a map showing its geographical distribution. Outlines for coloring and blank maps, similar to those on a succeeding page, may be secured, without cost, of the National Association of Audubon Societies at 141 Broadway, New York City. There is no limit to the number of words in each biography. Biographies should be sent to the National Association of Audubon Societies at the address above given, so as to be received not later than March 1. Biographies received after that date will not be considered as eligible for the competition. Competitors living in the West may write on either the Western or Chestnut-backed Bluebird.

PRIZES

For the best biography of the Bluebird, on the lines above mentioned, will be given the first prize, the gold badge of the Audubon School League.

For the second best biography will be given the second prize, the silver badge of the Audubon School League. Writers of biographies which are accorded honorable mention will receive the bronze badge of the Audubon School League. All to whom badges are granted become, by virtue of such grant, members of the Audubon School League.

All manuscripts, maps and outlines should be endorsed by the competitor's teacher or guardian as the work of the competitor.

SUBJECT OF THE SECOND BIOGRAPHY

The subject of the biography for the Second Audubon School League competition will be the Red-winged Blackbird. The announcement is made now in order that those who propose to prepare biographies may have an opportunity to study this bird in life, for it should be stated that, in awarding prizes, preference will always be given to the biography containing the largest amount of original observation.



OUTLINE OF BLUEBIRD PLATES

Teachers may obtain copies of this plate for coloring, on application to the School Department of the National Association of Audubon Societies, 141 Broadway, New York City.



OUTLINE FOR USE IN MAPPING THE DISTRIBUTION OF BIRDS

BIRD-LORE AS A TEXT-BOOK

It is suggested that teachers will find material in each issue of BIRD-LORE which will have a seasonable value in the study of birds. In the present number, for example, Dr. Merriam's tribute to Audubon might well be made the subject of a lesson on the life of this naturalist. Miss Hubbard's Study of Bluebirds contains much original observation and may well be used to supplement the more general information contained in Mrs. Wright's Leaflet.

The Bird Census furnishes a wealth of material for a study of the distribution of winter birds. The Chickadee, Junco, Crow, Downy Woodpecker, or some other abundant widely distributed winter bird may be taken as a subject for study and the student asked to outline its winter range, as shown by the census, on the map. In this connection the maps supplied by the School Department of the National Association of Audubon Societies may be used and the birds' distribution plotted upon them.

Professor Cooke's Migration Tables will also supply information in regard to the distribution of birds, while as an aid to the study of bird migration they are obviously of great value. A bird's journey northward may be followed by the records from the localities given, its average rate of speed reckoned, and the times of its arrival at each locality be used as some index of the northward advance of spring itself.

In Mrs. Wright's Editorial Essays on the month, which will be continued through the year, the teacher will not only find matter of exact seasonal interest, but we are sure an incentive to the study of nature as well.

F. M. C.

NOTES FROM YOUNG OBSERVERS

Boys and girls of 14 years and under are invited to send to the Editor of the School Department, of the National Association of Audubon Societies, at 141 Broadway, New York City, notes of interest in regard to their study of birds. Contributors should state their age.

A Bird Walk in December

Filling my pocket with nuts, I started at 8 o'clock for a tramp about the woods and fields in search of birds. It rained nearly all the time I was out.

I started toward the east, but, hearing a Woodpecker, returned to where I heard the call and found that it was a Hairy one. Turning to my left I entered a wood, but, not seeing many birds, thought it best for me to come out into the opening.

As I approached the clearing once more, I observed two Chickadees examining the bark of an apple tree.

When I stopped one of the Chickadees flew toward me as if he intended to alight on me; but, to my disappointment, he alighted on a bush just back of me. Not to be discouraged, I followed the two Chickadees, and therefore returned to the woods where I had been. Coming to a thicket of pines I stopped, anticipating a better acquaintance with the Chickadee, but again to my disappointment it flew away. Ascending a little higher, where I was not so much surrounded with trees, I saw several Chickadees. The two nearest me were evidently procuring food. Going as near as I thought possible without frightening the birds, I stopped and put two butternuts on my hat, and, holding one in my hand, awaited for the approach of the Chickadees. Up flew a Chickadee to a dead sumac tree, then on the tree which I was near, and at last on my hat, pecking the nut until he got sufficient food, then flew to a neighboring tree. But ah, thought he, it is so good I will come back and have another taste. This time he came on to my hand, eating part of the nut, flew to a branch and wiped his bill, and then returned to my hand again to say good-bye. I arrived home a little past eleven o'clock.—ETHEL R. BARTON, Cornish, N. H.

Confiding Vireos

One Sunday afternoon in July, as I was getting out of my carriage, I discovered a bird underneath the horse; I picked it up and found it to be a young yellow-breasted Vireo. He was too small to fly, so I took him in the house.

I fed him a while on potato; then took him out on the piazza. His loud chirping attracted the parents. I put him on my finger, and, after fifteen minutes of patient waiting, the mother bird flew down with a gypsy caterpillar, which she had taken from the apple tree. She first lit on my shoulder, then on my hand and fed her young. She continued to feed it for three quarters of an hour, when it became so dark I took it in the house and put it in a cage on the piazza roof for over night.

The next morning when I went to see how it was, I discovered another one of the brood on the roof; and before noon I had all four sitting on my finger, with the mother feeding them. The father only fed them once.

Fourth of July morning my sister and two of my friends each sat with a bird on their finger, while the mother fed them in turn. That night I put them in a tree close by, and the next morning, when I went to look for them, they had flown.—DWIGHT LEWIS FISKE (aged, 14 years), Winchester, Mass.

THE BLUEBIRD

By MABEL OSGOOD WRIGHT

The National Association of Audubon Societies

EDUCATIONAL LEAFLET NO. 24

Who dares write of the Bluebird, thinking to add a fresher tint to his plumage, a new tone to his melodious voice, or a word of praise to his gentle life, that is as much a part of our human heritage and blended with our memories as any other attribute of home?

Not I, surely, for I know him too well and each year feel myself more spellbound and mute by the memories he awakens. Yet I would repeat his brief biography, lest there be any who, being absorbed by living inward, have not yet looked outward and upward to this poet of the sky and earth and the fullness and goodness thereof.

The Bluebird's Country For the Bluebird was the first of all poets,—even before man had blazed a trail in the wilderness or set up the sign of his habitation and tamed his thoughts to wear harness and travel to measure. And so he came to inherit the earth before man, and this, our country, is all The Bluebird's Country, for at some time of the year he roves about it from the Atlantic to the Pacific and from Mexico to Nova Scotia, though westward, after he passes the range of the Rocky Mountains, he wears a different dress and bears other longer names.

The Bluebird's Travels In spite of the fact that our eastern Bluebird is a home-body, loving his nesting haunt and returning to it year after year, he is an adventurous traveler. Ranging all over the eastern United States at some time in the season, this bird has its nesting haunts at the very edge of the Gulf States and upward, as far north as Manitoba and Nova Scotia.

When the breeding season is over, the birds travel sometimes in family groups and sometimes in large flocks, moving southward little by little, according to season and food-supply, some journeying as far as Mexico, others lingering through the middle and southern states. The Bluebirds that live in our orchards in summer are very unlikely to be those that we see in the same place in winter days. Next to the breeding impulse, the migrating instinct seems to be the strongest factor in bird life. When the life of the home is over, Nature whispers, "To wing, up and on!" So a few of the Bluebirds who have nested in Massachusetts may be those who linger in New Jersey, while those whose breeding haunts were in Nova Scotia drift downward to fill their places in Massachusetts. But the great mass of even those birds we call winter residents go to the more southern parts of



UPPER FIGURES—CHESTNUT-BACKED BLUEBIRD

Order—PASSERES

Family—TURDIDÆ

Genus—SIALIA

Species—MEXICANA

SUBSPECIES—BAIRDI

LOWER FIGURES—BLUEBIRDS

Order—PASSERES

Family—TURDIDÆ

Genus—SIALIA

Species—SIALIS

their range every winter, those who do not being but a handful in comparison.

"What does this great downward journey of autumn mean?" you ask. What is the necessity for migration among a class of birds that are able to find food in fully half of their annual range? Why do birds seek extremes for nesting sites? This is a question about which the wise men have many theories, but they are still groping. One theory is that once the whole country had a more even climate and that many species of birds lived all the year in places that are now unsuitable for a permanent residence. Therefore, the home instinct being so strong, though they were driven from their nesting sites by scarcity of food and stress of weather, their instinct led them back as soon as the return of spring made it possible.

Thus the hereditary love of the place where they were given life may underlie the great subject of migration in general and that of the Bluebird's home in particular.

The Bluebird at Home

Before more than the first notes of the spring song have sounded in the distance, Bluebirds are to be seen by twos and threes about the edge of old orchards along open roads, where the skirting trees have crumbled or decaying knot-holes have left tempting nooks for the tree-trunk birds, with whom the Bluebird may be classed. For, though he takes kindly to a bird-box, or a convenient hole in fence-post, telegraph pole or outbuilding, a tree hole must have been his first home and consequently he has a strong feeling in its favor.

As with many other species of migrant birds, the male is the first to arrive; and he does not seem to be particularly interested in house-hunting until the arrival of the female, when the courtship begins without delay, and the delicate purling song with the refrain, "Dear, dear, think of it, think of it," and the low, two-syllabled answer of the female is heard in every orchard. The building of the nest is not an important function,—merely the gathering of a few wisps and straws, with some chance feathers for lining. It seems to be shared by both parents, as are the duties of hatching and feeding the young. The eggs vary in number, six being the maximum, and they are not especially attractive, being of so pale a blue that it is better to call them bluish white. Two broods are usually raised each year, though three are said to be not uncommon; for Bluebirds are active during a long season, and, while the first nest is made before the middle of April, last year a brood left the box over my rose arbor September 12, though I do not know whether this was a belated or a prolonged family arrangement.

As parents the Bluebirds are tireless, both in supplying the nest with insect food and attending to its sanitation; the wastage being taken away and dropped at a distance from the nest at almost unbelievably short intervals, proving the wonderful rapidity of digestion and the immense amount of labor required to supply the mill inside the little speckled throats with grist.

The young Bluebirds are spotted thickly on throat and back, after the manner of the throat of their cousin, the Robin; or, rather, the back feathers are spotted, the breast feathers having dusky edges, giving a speckled effect.

The study of the graduations of plumage of almost any brightly colored male bird from its first clothing until the perfectly matured feather of its breeding season, is, in itself, a science and a subject about which there are many theories and differences of opinion by equally distinguished men.

The Food of the Bluebird The food of the nestling Bluebird is insectivorous, or, rather, to be more exact, I should say animal; but the adult birds vary their diet at all seasons by eating berries and small fruits. In autumn and early winter, cedar and honeysuckle berries, the grape-like cluster of fruit of the poison ivy, bittersweet and catbrier berries are all consumed according to their needs.

Professor Beal, of the Department of Agriculture, writes, after a prolonged study, that 76 per cent of the Bluebird's food "consists of insects and their allies, while the other 24 per cent is made up of various vegetable substances, found mostly in stomachs taken in winter. Beetles constitute 28 per cent of the whole food, grasshoppers 22, caterpillars 11, and various insects, including quite a number of spiders, comprise the remainder of the insect diet. All these are more or less harmful, except a few predaceous beetles, which amount to 8 per cent, but in view of the large consumption of grasshoppers and caterpillars, we can at least condone this offense, if such it may be called. The destruction of grasshoppers is very noticeable in the months of August and September, when these insects form more than 60 per cent of the diet."

It is not easy to tempt Bluebirds to an artificial feeding-place, such as I keep supplied with food for Juncos, Chickadees, Woodpeckers, Nuthatches, Jays, etc.; though in winter they will eat dried currants and make their own selection from mill sweepings if scattered about the trees of their haunts. For, above all things, the Bluebird, though friendly and seeking the borderland between the wild and the tame, never becomes familiar, and never does he lose the half-remote individuality that is one of his great charms. Though he lives with us and gives no sign of pride of birth or race, he is not of us, as the Song Sparrow, Chippy or even the easily alarmed Robin. The poet's mantle envelops him even as the apple-blossoms throw a rosy mist about his doorway, and it is best so.

THE BLUEBIRDS

1. EASTERN BLUEBIRD (*Sialia sialis*)

Adult male.—Length 7 inches. Upper parts, wings and tail bright blue; breast and sides rusty, reddish brown, belly white. *Adult female*.—Similar to the male, but upper parts, except the upper tail coverts, duller, gray or brownish blue, the breast and sides

paler. *Nestling*.—Wings and tail essentially like those of adult, upper parts dark sooty brown, the back spotted with whitish; below, whitish, but the feathers of the breast and sides widely margined with brown, producing a spotted appearance. This plumage is soon followed by the fall or winter plumage, in which the blue feathers of the back are fringed with rusty, and young and old birds are then alike in color.

Range.—Eastern United States west to the Rocky Mountains; nests from the Gulf States to Manitoba and Nova Scotia; winters from southern New England southward.

1a. AZURE BLUEBIRD (*Sialia sialis azurea*)

Similar to the Eastern Bluebird, but breast paler, upper parts lighter, more cerulean blue.

Range.—Mountains of eastern Mexico north to southern Arizona.

2. WESTERN BLUEBIRD (*Sialia mexicana occidentalis*)

Adult male.—Above deep blue, the foreback in part chestnut; throat blue, breast and sides chestnut, the belly bluish grayish. *Adult female*.—Above grayish blue, chestnut of back faintly indicated, throat grayish blue, breast rusty, paler than in male, belly grayish.

Range.—Pacific coast region from northern Lower California north to British Columbia, east to Nevada.

2a. CHESTNUT-BACKED BLUEBIRD (*Sialia mexicana bairdi*)

Similar to the Western Bluebird, but foreback wholly chestnut. (See plate.)

Range.—Rocky Mountain region from Mexico north to Wyoming.

2b. SAN PEDRO BLUEBIRD (*Sialia mexicana anabelæ*)

Similar to the Western Bluebird, but back with less chestnut.

Range.—San Pedro Martir mountains, Lower California.

3. MOUNTAIN BLUEBIRD (*Sialia arctica*)

Adult male.—Almost wholly blue, above beautiful cerulean, below paler, belly whitish. *Adult female*.—Above brownish gray, upper tail coverts, wings and tail bluish, below pale fawn, belly whitish.

Range.—Western United States from Rocky Mountains to Sierras, and from New Mexico north to the Great Slave Lake region.

Questions for Teachers and Students

How many kinds of Bluebirds are there? Trace their distribution on the map. How do they differ from one another? How far north does the Eastern Bluebird remain in winter? Are the Bluebirds we see in winter the same individuals that spend the summer with us? When do the Bluebirds begin to migrate northward? Do they travel singly or in flocks? Which sex comes first? When do the Bluebirds begin to nest? Where do they place their nests? Of what is the nest composed? Do both male and female build? How many eggs are laid? What color are they? Do Bluebirds raise more than one family in a season? What does the Bluebird look like when he leaves the nest? What do Bluebirds eat?

The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by WILLIAM DUTCHER

Address all correspondence, and send all remittances for dues and contributions, to the National Association of Audubon Societies, 141 Broadway, New York City

Membership in the National Association

\$5.00 paid annually constitutes a person a Sustaining Member
\$100.00 paid at one time constitutes a Life Membership
\$1,000.00 paid constitutes a person a Patron
\$5,000.00 paid constitutes a person a Founder
\$25,000.00 paid constitutes a person a Benefactor

FORM OF BEQUEST

I do hereby give and bequeath to THE NATIONAL ASSOCIATION OF AUDUBON SOCIETIES FOR THE PROTECTION OF WILD BIRDS AND ANIMALS (Incorporated), of the City of New York,

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New Year's Greeting

The President wishes every member of the Association and all others who are interested in the subject of bird and game protection a Happy and Prosperous New Year, and, at the same time, asks for their active coöperation in the work of our Society. They can give it in many ways, one of the most valuable of which is to encourage others to join the important economic movement we are carrying on.

The whole trend of the public mind just now seems to be toward a more intelligent consideration of the value of wild birds and animals. A great deal of this sentiment can be attributed to the active campaign made by the Audubon Societies during the past decade. This is progress which must be continued. It is a change in public sentiment which cannot be expressed in more beautiful words than the following:

"I see the hearts of men go out, in new love and care and understanding, to the beasts of the field and to the birds of the air; and in all these I see the mind of the Son of Man and the power of the Will Eternal."

About Investments

The Association has received from the Albert Willcox legacy the sum of \$256,078. The Finance Committee have invested \$245,500 in first mortgages on property in the City of New York, and the balance of \$10,578, which has only recently been paid into the treasury, will be invested as soon as a satisfactory loan can be found.

The Finance Committee never loan more than two-thirds of the appraised value of a property, the valuation being made by the firm of Douglas Robinson, Brown & Co., of New York, one of the most conservative real estate firms in the city; further, a Title Guarantee Company's insurance policy is also taken, guaranteeing the title, so that our investments are conservative and safe and earn five per cent interest, free of taxes.

Another member of this Society, lately deceased, who in life contributed twenty-five dollars annually to the work of the Association, left it a legacy of five hundred Dollars, thus continuing his contribution in perpetuity.

Reservation News

Warden Kroegel, in charge of Pelican Island, Florida, sends us frequent and interesting reports regarding the condition of the birds there. He writes that the first Pelican eggs were found about November 1, almost a month ahead of the date in 1905. On November 15, there were nearly one thousand nests with eggs in them and about five thousand birds on the island, and nest-building was still going on. He adds, it looks as though the island would be full this season. On December 12, he reports that the first birds were hatched the day before, that not many were out yet, but the island is very well filled up with nests.

During the recent marked fall in temperature throughout the South, when thin ice was made during two mornings at Pelican Island, Warden Kroegel reports that about one hundred and fifty young Pelicans, mostly birds just hatched, perished as the result of the freezing. On December 31, the largest of the young Pelicans were beginning to show wing-feathers; the cold did not seem to hurt birds of this size at all. He estimates that there are two thousand young birds upon the reservation at this date. All of the above shows the remarkable results that can be achieved by perfect protection.

At the Breton Island and Audubon Reservation, Louisiana, great changes have taken place. During the hurricane in September last, one of the largest islands in the reservation, Grand Cochere, which was a sand and shell heap, but an admirable breeding place for Terns, was entirely obliterated, washed away, so that the birds will have to seek another breeding place during the next season. The same storm carried away our house of refuge on Breton Island, and every sign we had upon the entire reservation. The largest island in the reservation, Breton, was infested with muskrats and raccoons, but the hurricane and consequent high tides swept over the island completely and every vestige of animal life was destroyed. This will make it an admirable breeding ground for the Terns, as there will be no mammals to destroy the young birds or eggs.

The reservation covers about seven hundred square miles of territory, in a part of the Gulf subject to violent storms; therefore, it has been deemed necessary for the safety of our wardens, and in order that they may patrol the territory more rapidly, to furnish them with a seaworthy boat. An order has been given for a boat forty-five feet long, fourteen feet beam, schooner-rigged, with an auxiliary engine of eighteen horse-power. It will have accommodations for four men and will be used exclusively for patrolling this large reservation, which undoubtedly will in time become one of the most wonderful of the bird-breeding grounds in the western hemisphere. Warden Sprin-

kle reports large numbers of Royal and Foster's Terns on the reservation as late as December 4, Black Skimmers December 9, and Common Terns and Laughing Gulls December 29. Wild birds soon discover where they are not interfered with or annoyed, and remain there.

Legislation

The year 1907 bids fair to be one of the most active legislative seasons ever experienced by this Association, as will be seen by the following outline of legislative work:

ALABAMA.—A bill of the most advanced character has been introduced. It embraces the Model Law and the following features: Short open seasons for game and birds; non-sale; non-export; establishment of a game commission; non-resident, alien and resident hunting licenses. A large amount of educational work has been done and every possible aid has been given to the Honorable John H. Wallace, Jr., who has taken charge of the bill. Vice-President Palmer visited the Alabama legislature for the purpose of fully explaining and advocating the bill.

CALIFORNIA.—This state is a hotbed, at the present time, of legislative activity, and there will undoubtedly be many important and drastic changes made. Secretary Way, of the California Audubon Society, is devoting a great deal of time and energy to this important work.

Mrs. Alice L. Park, Chairman, Humane Education Committee of the California Federation of Women's Clubs, has introduced in the legislature a bill to establish Bird Day in the schools. Mrs. Park, two years since, introduced a similar bill which was passed by both houses of the legislature, but unfortunately it did not receive the Governor's signature, and therefore Bird Day in the schools had to be postponed two years and the work has all to be done over again. This shows that a woman, when she knows she is right, and is serving the public, is not apt to be discouraged but continues the fight until she is finally successful.

CONNECTICUT.—An attempt will be made to change the open season for wild fowl and shore-birds from late in the spring until January 1. A great deal of preliminary work has been done to help accomplish this very greatly desired result.

IOWA.—Mr. George A. Lincoln, State Fish and Game Warden, has introduced in the legislature a resident hunting license bill in order to make the game commission of his state self-supporting. In this connection it may be stated that the benefits derived from the hunter's-license law are becoming better appreciated every day, and it will certainly be only a few years before every state shall have adopted this wise provision.

MASSACHUSETTS.—Mr. George W. Field, President of the Fish and Game Commission, has introduced a bill to "authorize the Commission to take certain unimproved lands upon the island of Martha's Vineyard." This is for the purpose of making firestops in order to protect the feeding and breeding grounds of Pinnated Grouse, or Heath-hen, and otherwise secure the maintenance of these birds or of any other species of wild birds upon the said island.

A strong effort will also be made to repeal the law permitting the killing of Herring Gulls and Great Black-backed Gulls in Massachusetts, which is the only state in the country that does not protect these two sea-birds; and every bird-lover in Massachusetts should make it his first duty, after reading this notice, to write a strong letter to his representative in the legislature, urging that the present law shall be repealed.

It is known that the Game Commission of Maine has written to the Game Commission of Massachusetts protesting against the present Gull law in the latter state, on the ground that it is an injustice and a violation of the comity of states for Massachusetts to permit the killing of migratory birds which Maine is making special efforts to protect.

MISSOURI.—The conditions in this state are very interesting. Two years ago, the Honorable H. R. Walmsley succeeded, af-

ter strenuous work, in passing what is known as the Audubon Bill. This law prohibits the sale of game in Missouri and it also embraces the Model Law feature. St. Louis has always been one of the greatest selling and distributing points for game in the West, and the enforcement of the present law has restricted the business of the game dealers to such a degree that they are determined to repeal the whole law if possible, and, if not, that portion of it relating to the sale of game. It is reported that one game dealer spent \$2,000 to prevent the reelection of Mr. Walmsley to the legislature, which he was successful in doing. However, Mr. Walmsley cannot be prevented from taking an active part in defending the present excellent law of Missouri, notwithstanding he is not a member of the legislature.

The fight in the legislatures of Missouri and Texas this year is probably the initial step in a campaign that is necessary to prevent the total disappearance of the game-birds of this country, including, among them, water-fowl and shore-birds. If the *sale of game* is not totally abolished it is only a question of time, and probably a very short time, before there will be no game to protect or sell; and it is the duty of the public, especially those who love wild-life, to see that this question is settled once for all, not only in Missouri and Texas, but throughout the whole of North America.

On the one hand, the sale of game can be permitted for the benefit of a limited class of people, i. e., market-hunters, game dealers, and a few high-priced restaurants and hotels. On the other hand, the game-birds can be protected and perpetuated for the enjoyment of an exceedingly large class of persons who prefer the live bird in its natural surroundings and also for the benefit of a still larger class of persons, known as agriculturists, to whom birds of all kinds are of great economic value.

NEW HAMPSHIRE.—Following the suggestion made in the last annual report, it is probable that a bill will be introduced by Commissioner Nathaniel Wentworth, to establish a close season of ten years on the Upland Plover and the Wood Duck. The

Commissioner "thinks that it will be easy to pass such a bill, as the sentiment of the people is changing remarkably on the subject."

NEW JERSEY.—President Benjamin P. Morris, of the New Jersey Game Commission, in his excellent report to the Governor and legislature of the state, advocates very strongly the abolishment of spring wild-fowl and snipe shooting and also the adoption of the resident hunter's license law. His important recommendations will undoubtedly be acted upon, and this Association, of course, will do all that it can to help in this important matter.

The fact that in Connecticut and New Jersey, wild fowl can be shot after the first of January, has always been one of the strongest arguments brought by the Long Island duck shooters for the repeal of the New York law, and it is very pleasing indeed to know that the Game Commissions of New Jersey and Connecticut are both strongly in favor of having a wild-fowl law in their states, similar to the one in New York, because they realize that spring shooting is one of the greatest causes for the diminution of wild fowl, second only to market-shooting and sale.

NEW MEXICO.—Mr. W. E. Griffin, Game and Fish Warden, has agreed to introduce our Model Law at the present session of the legislature, and he writes: "From the present outlook, I believe little difficulty will be experienced in passing not only your bird law, but also a comprehensive game law."

NEW YORK STATE.—The battle in this state has not yet taken form, as the legislature has just commenced its session and it is too early to get an idea of what game bills will be introduced. There are many important changes that should be made in the present law; in fact, a complete revision of the mass of contradictory provisions in the New York law should be made. The proper way to do this would be for Governor Hughes to establish a commission to revise the entire game law; one member of the commission should be an ornithologist of national stand-

ing, to look after the interest of birds and game.

NORTH CAROLINA.—This is also one of the hotbeds of game legislation. The residents of certain of the counties on the coast where, for years, one of the industries has been killing Ducks for market, are determined to abolish the Audubon Society of North Carolina, or, if that is not possible, to remove all restrictions from some of the coast counties so the gunners may continue their market-shooting. It is the same old question whether the assets of a commonwealth, that belong to all the people, shall be confiscated and used by a very limited class.

Secretary Pearson recently visited Asheville and gave two public lectures. A local branch of the Audubon Society was formed, with 155 members. Asheville is the largest health-resort of the southern Appalachian mountains and is an important point for bird-protection work. Mr. George J. Gould has just agreed to contribute the sum of \$500 per year to help carry on warden work in this state, in which he has large property interests. It is fortunate that our secretary who has charge of the work in this district is young, strong and full of enthusiasm; for he needs every one of these qualities to successfully conduct the campaign that is now on, not only in his own state, but in the other six states under his supervision.

In this connection, it is of interest to call the attention of our members to the growth of Association work. Five years ago, one man, with the aid of a stenographer a portion of the time, could do all the work. Today the Association has at its main office, in New York, a staff of four assistants; the southern office at Greensboro, North Carolina, which is managed by our secretary, has a clerical staff of two. In addition, Mr. Edward Howe Forbush, late ornithologist of the Board of Agriculture of the State of Massachusetts, devotes his entire time to lecturing, organizing and getting new members for the Association in the New England states. The services of a lecturer and organizer for the states of Alabama, Mississippi, Louisiana, eastern Texas and Arkansas will shortly be secured. The foregoing will

give some idea of the expansion of the work of the National Association.

SOUTH CAROLINA.—Mr. Pearson will introduce a bill in the legislature, similar to the law in force in North Carolina, incorporating an Audubon Society in the state with all the powers of a game commission. From present appearances there is no doubt of the passage of the bill, as there is a growing interest in the state for bird and game protection.

THE DAKOTAS.—In both of the Dakotas bills of the most advanced character will be considered by the legislature. It is a matter of interest to the members of this Association to know that in nearly every instance when bills are introduced in any part of the United States, they are, when in preparation, submitted to the National Association for suggestions or revision. This gives an opportunity for the Association to recommend the adoption of the several fundamental planks in the platform of the National Association, which are, *non-sale of game, the abolishment of all spring shooting, and resident and non-resident licenses for every one who uses a gun.*

PENNSYLVANIA.—It is reported that an attempt will be made to make an open season on the Flicker. This effort will be made by a few persons living in one of the smallest counties in the state, who wish the privilege of killing this beautiful and very beneficial bird. In order to secure this privilege, protection must be removed from the bird in the whole state thirty days in the year, the time selected being in the fall, when the birds are migrating and are the most numerous. This is another one of the instances where a few individuals desire to take, for their personal pleasure and benefit, public property that every other individual in the state wishes preserved. The two Audubon Societies in Pennsylvania and the John Burroughs Society will have to see that this bill is killed, should it be introduced.

TEXAS.—The present bird and game law in this state is excellent, and it was retained

on the statute books largely by the work of Captain M. B. Davis, secretary of the Audubon Society, aided by the best sportsmen in the state, whose combined efforts prevented its repeal in 1905. It is likely that another attempt will be made to repeal this law during the present session of the legislature, and this Association is making a strong effort to maintain the integrity of the law and at the same time to strengthen it by establishing a game commission and also by having the resident, non-resident and alien hunter's license law passed.

There are a few men in Texas who make large sums of money every year by dealing in wild fowl. They are associated with the game dealers in St. Louis, Chicago, New York and other game-distributing centers. These are the men who are opposed to the present law and are trying to secure its repeal.

This Association has been making some investigations regarding wild-fowl conditions on the coast of Texas, and our representative finds a condition of affairs that is simply an outrage. On one occasion, at a railroad station, two market-hunters came in from the marshes with 205 Ducks, the result of that day's hunt. In a conversation, the hunter told our representative that he had hunted for market for sixteen years, going out every day except Sundays, while the Ducks were there, and doing nothing the balance of the year. He told of the diminution of water-fowl, and added, "There is no doubt but that they will be entirely exterminated within the next few years unless something is done to preserve them."

At another station, he found men who made a business of hiring gunners to shoot for them, to whom they supplied ammunition and guns and paid so much apiece for wild fowl which were shipped to Chicago and other places, contrary to the Texas non-export law. Our representative also learned that the gunners are afraid to send their water-fowl to the distributing points by railroad and, therefore, send them by small coasting vessels. On one of these boats he saw an ice-box six feet long by four feet wide and three feet high, which was filled with Ducks at the time he inspected it, the

number of which he estimated to be in excess of one thousand. This boat makes an average of one trip a week from the time the Ducks first arrive until the day the last one leaves for the North in the spring. Market shooting is illegal in Texas, but is carried on because the game dealers of St. Louis, Chicago, New York and other places get from the high-priced restaurants and hotels big prices for these birds. Every year the price of game increases, because the number of birds decrease. When the sportsmen of the country wake up to the fact that the next generation will not have any game-birds, they will probably be willing to join with the nature-lovers to stop the sale of all game and also to stop the killing of any game-birds after the first day of January.

This Association will have two active, intelligent, earnest workers represent it at the capital of Texas to prevent, if possible, the repeal of the present law, which necessarily compels the market-hunter to work secretly and gives them a great deal of what they consider, unnecessary trouble in shipping their illegal goods. We also hope to establish a game commission in Texas in order that the law may be enforced, and to have every man who uses a gun secure a hunter's license.

VERMONT.—Eternal vigilance is the price of safety for birds, and it is not prudent for the Audubon Societies to relax their watchfulness for a moment during the legislative season. In Vermont, a single fruit-grower thought he had cause for complaint against the Cedar Waxwing for eating his cherries. Without any thought of the results of his action, he sought relief for his fancied loss by an attempt to have protection removed by legislation from all the Waxwings in the state. By concerted action on the part of the Vermont Audubon Society and the good sense of the majority of the members of the legislature, the bill was defeated. It came up a second time in a modified form, i. e., that a fruit-grower might claim damages from the state on presenting proof that he had been damaged by Waxwings. It was not a difficult matter to show the members of the legislature that it would be practi-

cally impossible for any fruit-grower to furnish reliable evidence of damage. The mere fact that Waxwings were seen in a fruit tree would not be evidence that could be accepted by the state officials. The only evidence worthy of credence would be an examination of the stomach contents of the bird made by an expert. Such evidence it would be impossible for the complainant to furnish. The second bill was also defeated. In this connection the testimony of Mr. William Brewster, of Cambridge, Massachusetts, regarding the food habits of the Waxwings, is of great value and interest. There is no ornithologist in this country whose statements regarding the habits of birds have greater weight than those of Mr. Brewster, as he never gives an opinion unless it has been carefully weighed and is the result of long personal and exceedingly careful observation. In a recent letter to the National Association, he gives his views regarding the food of the Waxwings, as follows:

"I am convinced, by an experience of more than forty years, that the harm done in the East to small-fruit crops by Robins, Cat-birds and Cedar-birds has been greatly exaggerated. Where those fruits are grown in any quantity, the loss caused by the birds just mentioned is very trifling. My father used to maintain that the best way to deal with the birds was to furnish enough extra fruit to supply their wants and to allow them to eat it undisturbed. I have long acted on this principle and with perfectly satisfactory results. In my garden in Cambridge, six cherry trees have furnished us with more fruit each season than our family and friends have been able to use, both fresh and for preserving. Yet the swarms of Robins and the more or less numerous Cedar-birds, which visit these trees at all hours of the day, when the fruit is ripe, are never disturbed at their repasts.

"At Concord, where I have been cultivating a variety of fruit and berries for the past six years, I had much trouble at first because I did not allow sufficiently for the depredations of the squirrels (gray, red and ground squirrels), which, being carefully protected, were numerous and bold;

but by the simple and inexpensive expedient of increasing the number of fruit-bearing plants of every kind, I was soon able to supply the birds and squirrels with all the food of this kind that they cared for and to obtain for myself more than two families could use. I am quite aware that there are men in New England who grow such small fruits as cherries, raspberries and strawberries on a large scale for the markets, and who claim that the Robins, Catbirds and Cedar-birds cause them very heavy losses. I do not believe such assertions, for whenever I have investigated them I have found that they were practically without foundation. The man who has fifty cherry trees, or half an acre of strawberries or raspberries, has nothing to fear from either birds or squirrels; he who has only one or two cherry trees or only a few square yards devoted to strawberries is likely to lose almost his entire crop unless he protects his trees and plants by netting, which is not a difficult or expensive matter.

"Of our native birds, the Robin unquestionably does the most damage to small fruits, partly because of his greater abundance, than any of the other fruit-eating species and also because he spoils many a fine berry by pecking into it. The English Sparrow is still more destructive in this way. The Cedar-bird is seldom numerous enough to do much harm, and he never, as far as I have observed, mutilates cherries or other fruit which he does not eat. I have talked with other fruit-growers in eastern Massachusetts, and they agree that there is no serious loss from Cedar-birds. When the elm-leaf beetles first arrived in Cambridge, four or five years ago, the Cedar-birds assembled to prey on their larvæ and were of much service in this way."

PACIFIC ISLANDS.—Mr. William Alanson Bryan, the Honolulu representative of this Association, in a late letter states that "I hear of no further poaching in the outlying islands." How important and pleasing this information is, and how great the change from the conditions that obtained a few years since, can best be understood by a comparison with the following account of the

conditions that existed in 1902, at Midway Islands*; "August 21, 1902, we reached Sand, the larger of the two islets of the Midway group. We found no signs of recent occupants, other than the cast-off garments of the colony of Japanese bird-poachers, to whose work of destruction I shall later refer. Everywhere on Eastern Island great heaps, waist-high of dead Albatrosses (*Diomedea immutabilis*) Gooney, and Black-footed Albatrosses (*Diomedea nigripes*) were found. Thousands upon thousands of both species had been killed with clubs, the wing and breast feathers stripped off to be sold as hat trimmings, or for other purposes, and the carcasses thrown in heaps to rot. After my acquaintance with the colony of bird pirates on Marcus Island, it was but too apparent that a similar gang had been in full operation at Midway not many months prior to our visit, and that they had worked sad havoc among the birds there, in spite of the severe warning which had been given by Captain Niblack, of the Iroquois, to a party similarly engaged the season before. The work of exterminating the Midway colony was surely well under way, and I was convinced that unless something definite was done, and that at once, to prevent such wanton destruction, before long this colony of Albatrosses, as doubtless all those on the low, outlying islands, would be wiped out precisely as the one on Marcus Island had been.

"On my return to Honolulu I took the matter up with the proper officials in Washington, among others addressing a letter to the Chief Executive, with the result that the subject was brought to the attention of the various cabinet officers concerned. With the coöperation of Dr. Palmer, of the United States Biological Survey, together with the energetic services of Mr. William Dutcher, President of the Audubon Societies, to whom the whole matter of bird protection for the Pacific has been presented in person by the writer, most satisfactory results have been obtained. A naval vessel will, in the future,

*Report of a visit to Midway Island by William Alanson Bryan. Extracted from Director's Annual Report, 1905, Bernice Pauahi Bishop Museum, Honolulu. Also, see BIRD-LORE, Vol. VII, 1905, p. 301.

make at least two patrol trips each year to the outlying islands of the Hawaiian group to break up or prevent further depredations. The officers and men stationed on Midway have strict orders to protect the bird colonies there. The fishing rights to certain of the outlying islands will be let only by the Territory, with special clauses protecting the bird colonies thereon; while the Japanese government will, in future, refuse to allow predatory hunting and fishing vessels to leave Japanese ports.*

PHILIPPINE ISLANDS.—A valued correspondent, who is an officer of the United States Army, writes of the bird conditions in the Philippines as follows: "As far as bird destruction is concerned in these islands, I think there is practically or even absolutely none; for this there are many reasons. To possess a firearm of any kind one must have a special license obtainable only from Manila. Wild birds or any part of them are not used, as far as I have ever observed, by the natives for any purpose whatever. No native has energy enough to hunt for pleasure, even if he should have a gun. There is no tendency or capacity among the natives to take up any new industry. Hemp, rice, tobacco, sugar, fish,—nothing else practically. They never indulge in sport, as we understand it, except cock-fighting and a little introduced horse-racing. There are very few foreigners outside the big cities, and they are nearly all agents of the hemp, rice and tobacco houses, etc. I doubt whether a commercial skin has ever been shipped."

Mr. Richard C. McGregor, of the Philippine Bureau of Science, Manila, confirms the above opinion in the following words: "I think there are very few birds destroyed here; with the very rigid law on firearms, it is not probable that many species of birds will be hard pressed."

Notes and News

PLUME SALES.*—Bird-of-Paradise skins and 'Osprey' feathers were again in large supply at the Commercial Salerooms on October

16, over 5,700 of the former being catalogued and nearly all sold. Of 'Osprey' feathers there were 485 packages, described as East Indian, Rangoon, Chinese, Venezuelan, Brazilian and Senegal; "short selected" reached as much as £8 per oz., "mixed heron" went as low as 4½d. and 6½d. The miscellaneous bird skins were almost all South American. Forty cases of quills included wing-quills of Pelicans, Swans, Albatrosses, Eagles, Hawks, etc., and tail-feathers of Buzzards and other birds of prey. At the sale on December 11, there were offered about 3,600 Birds-of-Paradise, 265 packages of 'Osprey' feathers, and 5,278 wing-quills of various birds. The miscellaneous skins, etc., included a very large number of heads of the Crowned Pigeon.

CAGE-BIRDS.—Occasionally dealers think that the vigilance of the National Association is relaxed in respect to cage-birds. Recently some dealers in Philadelphia thought it would be safe to offer for sale Cardinals and Mockingbirds. This was called to the attention of the Pennsylvania Game Commission, who promptly arraigned three dealers, two of whom paid fines, while the third has been foolish enough to appeal from the decision of the lower court.

EDUCATIONAL LEAFLETS.—There is a constantly increasing demand for our educational leaflets, which is not entirely confined to the United States. A request was received from N. Gest Gee, Soochow University, Soochow, China, and also from Mr. C. C. James, Deputy Minister of Agriculture, Ontario, Canada, who says, "perhaps these leaflets may be of use in connection with our school work." Miss Stebbins, Superintendent of Nature Work in the schools of Springfield, Mass., writes: "Your leaflets have been examined. They contain much of the information which I have found it rather difficult to put into the hands of my teachers. There are eleven school buildings, containing grade VII, in which we are especially pushing the matter of the economic value of birds; and we not only could, but should be delighted to have an opportunity to use your leaflets there. If you will send full sets to

*From 'Bird Notes and News,' Vol. 2, No. 4, 1906, London, England.

me I will see that they are used in the schools."

WITH A CHECK FOR \$300.—A friend who sends us a check for \$300 writes: "I am only too glad to help protect the birds. I wish every one could realize, as I do, the damage, the terror, of the insect plagues we are facing in Massachusetts. It would not surprise me if in ten years all my spare pennies may have to go to protect my woodlands."

In this connection it may be stated that the gypsy moth has spread as far as Maine and also into Connecticut. How long will it be before this terribly destructive insect will have spread over a large part of the country east of the Mississippi. It bids fair to do as great damage as the boll weevil, which is steadily marching eastward.

USE FOR HERRING GULLS.—Mr. Edward Hatch, Jr., who employs a special warden to guard the Gulls breeding on his islands in Lake Champlain, writes: "I have found a practical use for the Gulls; they are the harbingers of pollution. They do not, and cannot, live where there is no pollution. They are the only scavengers Burlington and Plattsburg have, and they are working days and nights until the lake freezes over."

DENMARK.—It is with pleasure that we note that a bird-protective society, entitled, "Svalen" (The Swallow), has been established in Denmark. The secretary, Lieutenant Colonel L. Nehr, of Copenhagen, writes: "At the present time the society contains 75 circles and 4,000 members distributed all over Denmark. The aims and principles of the society are:

"To influence the public generally, by lectures, and by articles in the newspapers, and to disseminate information regarding the economic value of birds.

"To protect the useful birds.

"To discourage the murder of birds in southern Europe.

"To discourage the purchase and use of the feathers of any species of birds for ornamentation, except those of the Ostrich and domesticated fowls.

"To set up nesting-boxes and to feed wild birds in the winter."

The secretary adds: "The society will be represented at the Agricultural Congress in Vienna, in May, 1907."

MARYLAND.—In this state the Audubon Society has been reorganized, with new officers, and it bids fair to be an active, progressive organization.

Women's Clubs

The club women of the country are showing a splendid spirit and are doing a great deal to help the National Association in its effort to restrict the use of the "White Badge of Cruelty," which is sold by the milliners under the name of "Aigrette." Women of intelligence are unwilling to use millinery ornaments that can be obtained only by the sacrifice of life.

At a recent meeting of the Executive Board of the New York State Federation of Women's Clubs, it was determined to recommend to the State Federation that they should assist the Audubon Societies in their efforts to protect the wild birds and animals of the country. Although similar action was taken a few years since, yet the recommendation will be repeated and emphasized at the coming annual meeting.

At the meeting of the Woman's Club of Denver, Colorado, January 7, after hearing an address on the subject of bird protection, by Professor Felger, the following resolutions were unanimously adopted: "Inasmuch as the destruction of bird life will continue regardless of laws as long as the women of our land persist in wearing bird feathers for personal decoration; therefore, be it

"Resolved, That we, the Woman's Club of Denver, decry the use of *all feathers*, except those of domesticated fowls, for decorative purposes.

"Resolved, That we do hereby tender our hearty support to the efforts being made in the United States to discourage the sale of wild birds' feathers and to enact and enforce laws prohibiting the killing of wild birds for such purposes."



1. ROBIN, MALE.

2. ROBIN, YOUNG.

ROBIN, FEMALE.

Bird = Lore

A BI-MONTHLY MAGAZINE

DEVOTED TO THE STUDY AND PROTECTION OF BIRDS

OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

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No. 2

The House Finch from an Office Window

By W. H. BERGTOLD, Denver, Colo.

MANY a bird-lover laments, because, in the rush of his busy life, there is not more leisure to spend in the meadows, and forests, whither his bird friends constantly call. Probably he never dreams of studying live birds while at his office desk. We, however, who live in the towns and cities west of Kansas, have a charming bird with us always, right at our office windows, which, if it be given the smallest encouragement, is an unfailing associate and visitor, namely, the House Finch.

The House Finch is quite different, in habits, from its cousin of the East, the Purple Finch: it *prefers* to build in and about the haunts of man, on the points of vantage on houses and other buildings, and is perfectly at home on the large buildings in the center of a large busy city, remaining with us in the city the year round, and singing with sweetness and vigor all the warmer months, it even bursts into song on bright and warm days during the winter. This bird is a favorite with every one in Denver, and many people feed it during the colder months, but, strange as it may seem to our Eastern friends, the matter of drinking-water is a question more difficult for the Finch to solve in cold weather than is that of food. In this dry climate, where it scarcely ever rains in the winter, a season when at most there is but scant precipitation which usually dries promptly, the Finches find very little water left in the streets, on the roofs, or in the eave drains, and, too, this little is very often frozen, pressing the birds hard to find a drinking place.

The writer has, for some years past, kept a shallow pan filled with water, fastened to one of his office window-sills; this office is in a building located in the heart of Denver, surrounded by other high structures, and on the top (fifth) floor, the windows facing south and west. During freezing weather this pan is kept thawed with hot water; the Finches come to this little drinking-dish by dozens and dozens every day in the year, and chatter and dispute over precedence in taking a drink, like any diplomat at a presidential reception. Those about this office have learned that the quietly

moving office occupants mean them no harm, and so do not cover their individuality by timidity. It is fascinating, and often not conducive to unbroken attention to work, to have these pretty little things about, to watch the individual character, and to learn that each is really a little different from the other. The bright males, their crimson heads flashing in the brilliant sunshine, are not one whit more interesting or attractive than their sober-colored mates.

Early last spring a male, which had met with some accident that had scraped off all the feathers of its left forehead, came daily, the shabby head



HOUSE FINCH AT DR. BERGTOLD'S WINDOW

Photographed by W. H. Bergtold

marking it for personal identification, so that we soon learned of its fearlessness, and through it we were able to determine definitely that the same bird came for a drink several times a day. It was also noticed taking a bath several times, scattering the water far into the office. And if the day were very cold it would at times come into the room to sit on the slightly warmed radiator near the open window. Most of the Finches, however, do not come into the room, but show appreciation on cold days, of the warm outgoing air by sitting on the sill, backs to the current, puffed up like little

wool balls, but still watching in a sleepy manner for danger. Some are quite timid, flying from the sill at the least noise, or motion, taking a drink only after many seconds' examination in all directions of the bird horizon. If the awning above shake or be blown sharply, off they go like a flash. Some drop on to the sill promptly, but show the least little hesitation in taking a drink; most of the birds have learned, it is pleasant to say, that this permanent water has no dangers, and alight at once, take a drink, and are off again without haste.

Three or four dips into the water is an ordinary drink, though one bird has been observed to dip its beak eleven times before being satisfied. The



HOUSE FINCH RETAINING BALANCE BY USE OF ONE WING

Photographed in Denver by W. H. Fisher. Courtesy of 'The Auk'

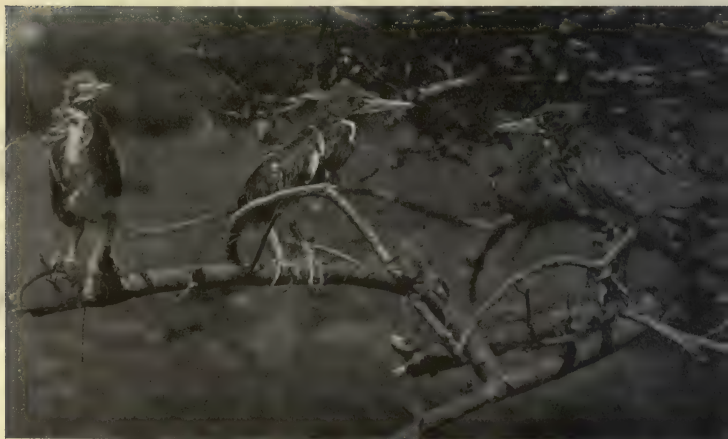
nest is located somewhere about these high buildings, and when the young first fly they often flutter from the higher neighboring roofs to our windows below, and, by chance, a number have landed at this drinking window; lingering here for a while they would be fed, and then venture on another flight into the great unknown world. One little fellow was seen to take a drink, a first drink it appeared from its actions. It stood unsteadily on the dish edge, and looked and looked and looked into the water, making a motion as if to drink, but still uncertain. Then it touched the water timidly, and again, and again, and then a long dip, and more. Perhaps it was the same youngster that was watched taking its first bath, a performance of timidity, uncertainty, hesitation, a sudden resolution, a plunge,

and an astonished retreat to shore, to be repeated over and over again for the next few minutes.

These birds are good company and most welcome to roost in the folded window awnings these winter nights; they usually get ready to retire for the night about half an hour before sunset, and creep in and out of the canvas like Wrens. One can tell when they are nearly ready to go to bed, as they come in large numbers to drink before settling down for the night.

There came to the water last spring, for a while, a female with only one leg; it was in excellent plumage and flesh, but had difficulty in getting down to the water, though the surface was but little below the pan edge, its one leg being insufficient to steadily and surely lower and raise its body. We felt that an acquaintance was gone when, after a few calls, it returned no more. The writer's desk is within three feet of the water-dish; the birds drink fearlessly while they are being watched, and the charm of close acquaintance enhances the opportunity of studying every detail of color, hang of wing, attitude of legs and tail in alighting, hopping and drinking. And, too, the many different notes of alarm, companionship, encouragement, notes of discovery and anger are given clarity of identification by the closeness of observation; in fact, nothing can surpass the completeness of this way of learning bird character. They are often so close that one is reminded by their tiny, glistening black eyes, of Shakespeare's keen powers of observation when he makes Imogen say:

"But if there be yet left in heaven as small a drop of pity
As a Wren's eye." - (Cymb. IV-2)



YOUNG GREEN HERONS

Bird Clubs in America¹

III. The Maine Ornithological Society

By J. MERTON SWAIN, Secretary-Treasurer.

THE association known as 'The United Ornithologists of Maine' was founded by Stephen J. Adams, of Cornish, Maine, January 1, 1893.

It was conducted for two years as a correspondence society without officers. During this period an attempt was made at organization, and a constitution was drafted; but, owing to the unsatisfactory results of the correspondence method and to certain contentions that arose, the idea was abandoned.

Increased interest, however, in the subject of ornithology in the autumn of 1894 warranted a second trial. Another constitution was drafted January 1, 1895, and a permanent organization was effected by the election of the following officers:

President, Stephen J. Adams, Cornish, Maine; vice-president, Charles B. Wilson, Waterville, Maine; secretary, William L. Powers, Gardiner, Maine; treasurer, Ralph Rockwood, Waterville, Maine.

The charter members were indeed few, as will be seen by the following list: Stephen J. Adams, William L. Powers, A. P. Larrabee, Ralph Rockwood, Charles B. Wilson, Maurice Royal, all of Maine.

It was the plan of the founders to publish a list of all birds that breed in the state, map their faunal areas, and add a list of migrants. At the close of 1895 the ranks contained thirty-five members, yet no active work had been done.

Early in 1896 new officers were elected and the work of the society began to take a definite shape. The following were chosen officers for 1896:

President, James Carroll Mead, North Bridgton, Maine; vice-president, Everett E. Johnson, Lewiston, Maine; secretary and treasurer, Ora W. Knight, Bangor, Maine.

President Mead at once entered upon a campaign of reform by appointing Mr. Adams, Mr. Lane and Mr. Powers a committee to revise the constitution. Negotiations were entered into with the leading papers of the state for space in which to publish the transactions, and the 'Maine Sportsman,' a monthly journal, published in Bangor, was decided upon as the most suitable organ. In the March number of that year there was a page devoted to our interests, edited by Ora W. Knight, of Bangor, and each succeeding issue contained a like amount of information, valuable to the student of ornithology.

In the April number of 1895, the committee on new constitution

¹ For Nos. 1 and 2 in this series, see BIRD-LORE, IV, 1902, p. 12. 'The Nuttall Club' and *Ibid.*, p. 57, The Delaware Valley Club.



(Standing) Hiram Ellis W. H. Brownson, Editor Sherman E. Phillips
 Mrs. A. E. Marks D. S. Hersey Miss Etta Parker Mrs. A. H. Norton Miss E. W. Russell F. M. David
 (Front row) J. Merton Swain, Sec'y-Treas. Leslie A. Lee, Pres. Arthur H. Norton

reported their final draft, and in the May number President Mead was able to report its unanimous adoption by the society.

On December 28-29, 1896, the society held its first annual meeting in the high school building at Gardiner. The following officers were elected for 1897: President, A. H. Norton, Westbrook, Maine; vice-president, Ora W. Knight, Bangor, Maine; secretary and treasurer, William L. Powers, Gardiner, Maine; councilors, A. L. Lane, Waterville, Maine, and James Carroll Mead, North Bridgton, Maine. Five new members were elected at this meeting. Previous to this meeting, none of the members, outside of the Gardiner branch, had ever met.

In the spring of 1897, the hopes and ambitions of the members of the society were realized in the publication of 'The Birds of Maine,' under the able editorship of Ora W. Knight, of Bangor, the list having been prepared under the auspices of the society. Such was the demand for this careful and concise work that the supply was soon exhausted. One of the best and most enthusiastic meetings the society ever held was its second annual meeting, held in the rooms of the Portland Society of Natural History, in Portland, December 31, 1897, and January 1, 1898. All the officers were present and a goodly number of members. Twenty-nine new members were elected and several valuable scientific papers were read, among them, one of especial interest, 'How I Became an Ornithologist,' by Hon. George A. Boardman, of Calais (the pioneer naturalist of the St. Croix valley). These papers were placed in the hands of Editor Mead for publication in the official organ, 'The Maine Sportsman.' Messrs. Lane, Hitchings and Knight were appointed a committee to consider a new and appropriate name for the society and to report at the next meeting. The society, too, voted to make a special study of a family of birds, by each member, and make reports at each annual meeting. At the third annual meeting held in Waterville, it was voted to change the name of the society to 'The Maine Ornithological Society'. A proposition made by Mr. Knight to publish the proceedings of the society separately was accepted, and Clarence H. Morrell, of Pittsfield, was elected editor, with Mr. Knight as publisher. It was voted to call the new publication, The Journal of the 'Maine Ornithological Society.' To Mr. Powers belongs the honor of suggesting the name of the society, and to James Carroll Mead for the name adopted for 'The Journal.'

The first number of 'The Journal' appeared as a quarterly in January, 1899, and the three following numbers, with an average of ten pages, were well filled with material of much interest to students of Maine birds. Owing to Mr. Morrell's ill health, he declined to serve as editor of Vol. II, and at the fourth annual meeting held in Brunswick, Mr. J. Merton Swain, of Portland, was elected to succeed Mr. Morrell as editor. At the completion of Vol. II, Mr. Swain assumed the publication of 'The

Journal' also. Slowly, but surely, it was enlarged and put on a better paying basis by increasing the advertising and enlarging the subscription list. Mr. Swain was reelected for five consecutive years. At the close of Vol. VI, owing to pressure of business, and the conviction that for that reason he could not do justice to 'The Journal,' and to the fact that he was chosen by Mr. Knight to serve on the committee to assist in writing 'The Revised List of the Birds of Maine', Mr. Swain resigned the office of editor and was elected secretary and treasurer. Mr. W. H. Brownson, of Portland, was then elected editor by the society, and under his management 'The Journal' has continued to improve and increase in value and popularity. Still greater improvements are in contemplation as fast as a larger list of members and subscribers can be added. Many papers of interest, relative to Maine birds, have been published from time to time. In Vol. V, No. 4, a series of papers, 'Notes on the Finches Found in Maine,' by Arthur H. Norton, was begun. It was concluded in Vol. VI, No. 3. In Vol. VI, No. 2, began a series of papers, 'Contributions to the Life Histories of the Warblers Found in Maine,' written by Mr. O. W. Knight and Mr. Swain, and these are still being published in the current volume. For several years the members have been making spring and fall migration reports. The results have been tabulated by Mr. Dana W. Sweet, and published from time to time in 'The Journal.' The society at once became prominent in the work of protecting the breeding colonies of sea-birds when the wave of sentiment swept the whole country to stop the wanton destruction of birds for plumage to adorn millinery. It at once responded to the call to assist the A. O. U. committee on protection and the Audubon society committee, rendering valuable aid. The adoption of the A. O. U. model bird law by our state legislature was effected through the efforts of our society.





A BLUEBIRD FAMILY

Clay Bird-Houses and Bird-Baths

By ROBERT W. HEGNER

With photographs from nature by the author

A PROBLEM that greets us with the coming of each spring is that of attracting the birds to our homes. One of the best magnets is the artificial nesting site, or bird-house. The most common bird-house birds are the Wrens and Bluebirds. Whenever possible, the Bluebird will build in a deserted nest-hole of a Woodpecker or a weather-worn cavity in a tree. The pair of Bluebirds in the illustration nested in a cavity in a fence-post. They had five young almost ready to fly when the photographs were made.

Wrens nest in similar situations, but will build in bird-houses whenever possible.

The introduction of manual training and nature study into graded schools has given a great opportunity to teach the value of birds by means of the bird-houses made by the children. The children at the School of Education of the University of Chicago studied carefully all the kinds of birds that are known to nest in artificial sites, and then



HOUSE WREN

each one selected the bird for which he wished to build, and drew his plans accordingly. In the spring of 1906, these children, in coöperation with the Chicago South Park Board, made several hundred Wren- and Bluebird-houses which were placed in trees in Jackson and Washington Parks. A photograph of the children, each child with his bird-house, about to start for the park, was published in the May, 1906, number of the 'Elementary School Teacher.' A new method of building bird-houses was recently adopted in the clay-work department of this school. The children in the sixth grade modeled them from clay. They made them with concave backs, so that they would fit the trees for which they were intended and could be fastened easily by wires. They were baked a brownish color resembling the trees, as a protection from various enemies. Several of the children wrote the name of the bird they wished for a tenant in sunken letters on the front of their production. One of the finished efforts is so ingenious as to warrant a drawing and description. This house is



CLAY NEST BOXES

the one in the center of the lower row in the illustration. The builder of it furnished it with a lid so that the contents could be examined at pleasure. Bird-baths had been under discussion, and this lid was made concave so that the rain would fill it with water. A gutter led from this bath-tub to a cup of clay built on one side of the structure. This cup caught the overflow and directed it through a small hole into another cup on the inside. This made it possible for the bird to drink without leaving the nest. On the other side of the house two other cups were fastened. The cup outside was for food, which was to be protected by a lid. The food was to run through a hole into the cup inside as fast as the



A BIRDS'-BATH

sitting bird desired. I do not know how successful this house has proven during the two years it has been in use, but it certainly is a model of modern methods in sanitation.

An accompanying illustration shows an excellent bird-bath. This is the work of Mrs. W. M. R. French, of Beverly Hills, Illinois. About four feet from the corner of the veranda of her home there is a connection for the garden hose. From this an abundant supply of water was obtained and a bathing pool was built just beneath it. A shallow hole was dug two feet wide, three feet long, and eight inches deep. This was lined with small cobblestones laid in cement. The end away from the tap was made lower than the upper end, and the superfluous water ran down a slight incline to the roots of a large oak tree, the visiting place of a remarkable number of birds at all times of the year. Every day throughout the summer a swift stream of water was turned on which effectually cleaned the tub and left a clear, cool supply for the thirsty birds. No account has been kept of the varieties and numbers of birds that visited the

bath, but it very soon became known to the feathered neighbors and they came daily for their refreshment. Blue Jays, Catbirds, Bluebirds, Robins and Wrens at once took possession, and not only were visitors but built their nests and made their homes in the trees and bushes about the yard. And the birds were not alone in their appreciation of their hostess' kindness, for many a dog has quenched his thirst at this same fountain.

A large pedestal for flowers which stood on the lawn served as a bathing and feeding place for birds, and its attractions were many. These are only two of the devices at the home of Mrs. French for bringing nature to the doorstep. Bird-boxes, food during the winter, and succoring the strayed, injured or stolen were other activities that made the lives of the wild inhabitants happier in this vicinity. The final result will no doubt be the continued presence of birds and a general uplifting of the men, women and children who become interested in them.



A BATHING FOUNTAIN

A Gentle Criticism

By JOHN LYALL GARRETSON

With photographs by the author

LET us encourage the study of natural history with the aid of the camera, and by our friendly criticism may we cause others to think of ways to benefit themselves and at the same time bring pleasure into the hearts of the lovers of nature.

With this idea in mind, it is the desire of the writer to call attention to the pages of many of our best magazines on natural history, with their interesting pictures, especially of birds, many of which are



YOUNG RUBY-THROATED HUMMINGBIRDS

admirable for what they bring to us, but are not strictly true representations of nature.

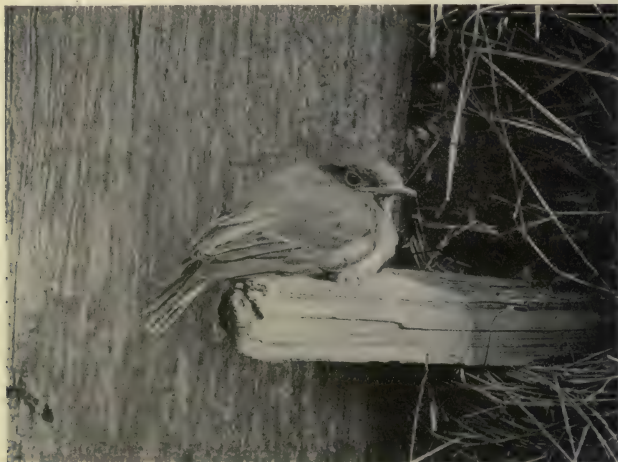
The pictures, as we see them, truly portray the birds of the woods and meadows while in a state of alarm; hence, they convey to us false impressions of what we believe to be animal life in its wild state.

The question before us is: How may we overcome the obstacles which hinder us from accomplishing the end we are striving for; that is, photography of nature while at home, as it were?

There seems to be but one solution to be offered, and that is, to so arrange our work that the subject photographed be wholly uncon-

scious of what is taking place: thus we eliminate all timidity on the part of our shy friends. Then only are we on the road to successful animal photography.

The best picture is not the most difficult one: but that one which brings nature to us as it exists away from harm's reach, and is an



PHEBE

honest representation of the manner in which God's creatures live while at home.

The expression, "at home with the birds," sounds very nice, but we should add, "while entertaining company," and we will conclude that the bird acts as unnatural while in the presence of strangers as does the human being.

Attention may be called here to the intelligent, peaceful expressions shown in our pictures of the domestic animals where there is no suggestion of alarm. Is this not ample proof that, in order to obtain the best photographs of our wild animals, we must press the bulb while they are unconscious of our presence?

It is seldom that we see a photograph of a bird standing on one leg with his feathers all ruffled up, and yet how well do we know from our observations with the field-glass, that this is one of the most common poses for a bird to assume!

The picture of the Humming-birds shows them full-grown and very nervous, being ready to take flight at any moment. This picture, although interesting, could hardly be called natural, since the birds are intently

watching the observations of the intruder. Shortly after the picture was taken they left the nest, flying, to all appearances, as well as their parents.

The young Phœbe here shown has a distinct naturalness which is lacking in the other attempts, for the reason that the bird was wholly unconscious of observation.

Let us have pictures of our birds, as of ourselves, exhibiting an unrestrained naturalness and ease of manner.



KINGFISHER

Photographed from nature by R. H. Beebe, Arcade, N. Y.

The Migration of Thrushes

SECOND PAPER

Compiled by Professor W. W. Cooke, Chiefly from Data
in the Biological Survey

With drawings by LOUIS AGASSIZ FUERTES and BRUCE HORSFALL

AMERICAN ROBIN*

SPRING MIGRATION

PLACE	No. of years' record	Average date of spring arrival	Earliest date of spring arrival
<i>Atlantic Coast—</i>			
New Market, Va.	12	February 23	A few winter
Washington, D. C.	7	February 26	A few winter
Waynesburg, Pa.	4	February 21	February 15, 1893
Beaver, Pa.	4	February 17	February 16, 1890
Berwyn, Pa., early years	7	February 14	January 16, 1899
Berwyn, Pa., late years	13	March 7	February 26, 1901
New Providence, N. J.	6	February 24	January 1, 1892
Selden, N. Y.	7	March 1	January 17, 1892
Flatbush, N. Y.	6	March 6	February 9, 1892
Alfred, N. Y.	14	March 11	February 18, 1900
Shelter Island, N. Y.	6	March 16	January 1, 1887
Branchport, N. Y.	9	March 11	February 29, 1896
Boonville, N. Y.	10	March 20	March 4, 1889
Center Lisle, N. Y.	13	March 19	March 1, 1902
Holland Patent, N. Y.	17	March 18	March 6, 1894
Ballston Spa, N. Y.	16	March 18	January 20, 1892
Paradox, N. Y.	4	March 25	March 20, 1889
Hartford, Conn.	13	March 16	February 26, 1888
Providence, R. I.	9	March 11	January 4, 1905
Eastern Massachusetts	19	March 11	January 1, 1903
St. Johnsbury, Vt.	10	March 21	March 9, 1902
Hanover, N. H.	5	March 20	March 13, 1898
Southwestern Maine	18	March 21	March 3, 1902
Halifax, N. S.	4	March 19	January 1, 1890
Grand Manan, N. B.	5	March 24	March 14, 1889
St. John, N. B.	10	March 30	March 12, 1898
Pictou, N. S.	5	April 1	March 15, 1887
North River, Prince Edward Island	4	March 31	January 9, 1887
St. Johns, Newfoundland	11	April 6	March 25, 1865
<i>Mississippi Valley—</i>			
Central Tennessee	7	February 19	A few winter
Central Kentucky	7	February 20	A few winter
Bloomington, Ind.	7	February 14	January 16, 1887
Waterloo, Ind. (near)	11	March 2	February 22, 1891
Wauseon, Ohio	7	February 28	February 6, 1887
Oberlin, Ohio	7	February 28	February 14, 1897
Ann Arbor, Mich.	19	February 24	January 24, 1904
Central Michigan	7	March 28	March 16, 1889
Northern Michigan	5	April 3	March 23, 1894
Rockford, Ill.	6	March 10	February 2, 1891
Chicago, Ill.	18	March 13	February 25, 1888
Strathroy, Ont.	13	March 8	February 19, 1890
Toronto, Ont.	10	March 12	Wintered 1888-89
Listowel, Ont.	11	March 13	Wintered 1891-92
Southeast Parry Sound District, Ont.	14	April 6	March 9, 1902

*The more western records refer to the Western Robin.

SPRING MIGRATION continued

PLACE	No. of years' record	Average date of spring arrival	Earliest date of spring arrival
<i>Mississippi Valley, continued</i>			
Ottawa, Ont.	15	March 23	January 9, 1894
Keokuk, Iowa	12	March 2	January 12, 1902
Fairfield, Iowa (near)	14	March 5	January 14, 1891
Iowa City, Iowa (near)	12	March 5	January 1, 1879
Davenport, Iowa (near)	14	March 8	February 18, 1890
Southern Wisconsin	14	March 12	March 2, 1885
Wisconsin. Latitude 45°	11	March 25	February 15, 1892
Lanesboro, Minn.	10	March 18	March 4, 1889
Heron Lake, Minn.	6	March 26	March 19, 1894
Minneapolis, Minn. (near)	12	March 24	March 9, 1903
Northwestern Minnesota	8	April 7	March 28, 1905
Onaga, Kansas	6	March 5	February 28, 1896
Syracuse, Nebr.	11	March 1	Wintered 1904-05
Argusville, N. D.	11	April 10	April 1, 1892
Larimore, N. D.	9	April 6	March 25, 1905
Aweme, Man.	12	April 10	April 2, 1905
Reaburn, Man.	10	April 13	April 7, 1901
Qu' Appelle, Sask.	5	April 10	April 4, 1904
Fort Providence, Mack. (near)	2	May 1	April 29, 1905
Fort Simpson, Mack.	3	May 3	May 2, 1861
Fort Enterprise, Mack.			May 14, 1821
Kowak River, Alaska			May 20, 1899
Rathdrum, Idaho	6	February 25	January 20, 1900
Columbia Falls, Mont.	5	March 21	March 15, 1896

PLACE	No. of years' records	Average date of last one seen	Latest date of last one seen
Northern Florida	5	March 14	April 27, 1887
Central Mississippi	5	April 6	April 16, 1902
Fredericksburg, Texas	3	April 8	April 26, 1895
Pasadena, Calif.			April 17, 1897

FALL MIGRATION

PLACE	No. of years' record	Average date of first one seen	Earliest date of first one seen
Northern Florida	3	October 9	August 8, 1890
Southern Mississippi	6	October 20	October 9, 1897
Fredericksburg, Texas	4	October 22	October 15, 1894
Pasadena, Calif.			October 5, 1897

FALL MIGRATION, continued

PLACE	No. of years' record	Average date of last one seen	Latest date of last one seen
Kowak River, Alaska			September 7, 1898
Great Bear Lake, Mack.			September 25, 1903
Columbia Falls, Mont.	3	November 14	November 20, 1892
Aweme, Man.	9	October 22	November 4, 1901
Northwestern Minnesota	4	October 26	November 5, 1895
Lanesboro, Minn.	6	November 6	Wintered 1888-89
Onaga, Kansas	3	November 23	November 27, 1904
Keokuk, Iowa	10	November 12	Wintered 1888-89
Ottawa, Ont.	14	November 12	November 29, 1888
Galt, Ont.	7	November 24	December 15, 1901
Oberlin, Ohio	7	November 4	November 28, 1896
Chicago, Ill.	8	November 11	November 21, 1904
Alberton, Prince Edward Island	5	October 31	November 3, 1897
St. John, N. B.	4	November 5	Wintered 1893-94
Montreal, Canada	4	November 4	November 8, 1887
Southwestern Maine	15	November 12	December 8, 1904
Renovo, Pa.	9	November 10	November 20, 1899
Berwyn, Pa.	10	November 20	December 23, 1894

‘Oölogy a Science’

To the Editor of BIRD-LORE:

The recent discussion of this subject in BIRD-LORE and ‘The Condor’ has been one of considerable interest, but in spite of the various views given it still seems that the crux of the question has been passed unnoticed. In the first place, it must be admitted that oölogy is not embryology and that, therefore, it is more or less unreasonable to discard the former because it has given no results to the latter branch of science. Oölogy, even at its best, has nothing to do with the development or structure of the embryo, except in so far as it affects the removal of the same from the shell. Therefore, oölogy, as oölogy, should not be tried on its merits as embryology, though it is difficult to see how any thorough naturalist can be unfamiliar with the great names cited in former letters on this subject.

Mr. Lucas has mentioned several cases where external ovarian features have yielded greater or lesser results in capable hands, and a few more might be cited that have shown confirmatory evidence of taxonomical relationships, but here is the point—are these few and isolated results enough and sufficient to dignify the subject as a special ‘ology’? Is there a series of facts in nature, however commonplace they may be, that, with the same amount of work as has been expended upon egg-shells, would not have yielded equal if not greater results? Do these meager results warrant us classing egg-shell study, as a whole, as scientific?

On one point all authorities seem agreed, that nest-hunting does afford

admirable facilities for the study of bird habits and life-histories, but is not this but a by-product of oölogy? Are eggs collected for the sake of the life-history knowledge thus gained, or are habits studied to aid egg-collecting? In other words, is life-history the end of oölogy, or is it a means to an end? If the former is the case, egg-collecting must be looked upon as scientific, but in the latter we can only regard it as in the nature of kindergarten work and as a means of absorbing knowledge in a pleasant way.

The fact that some of our greatest ornithologists began as collectors of eggs does not alter the question in any way; they began in the kindergarten, that is all. The question is, "How many of them kept at it when they grew able to do better?" This immediately brings to mind the memory of the late Major Bendire, who, perhaps, reached the high-water mark in American oölogy. But what part of his fame rests upon his oölogical work? If we eliminated the strict oölogical matter from his 'Life-Histories,' would the latter be seriously damaged? Reverse this operation and what would be left? If the pursuit of egg-collections was the only way in which knowledge of the habits of birds could be attained, the question would have a different aspect, but could not Bendire have learned as much of birds and their ways if he had taken up photography, or had sought to tag nestlings for migrational study, or, in fact, had taken up any one of the many subjects of inquiry that suggest themselves? Until such is proved to the contrary, the case of Bendire, and others of his class, cannot go far to substantiate the scientific claims of the oölogist.

Mr. Lucas asks also whether the *average* skin-collector is any less of a "mere collector" than the *average* oölogist? I am afraid that he is not, but there is this difference; he is of more use to science than the latter. A skin, with its locality and date, is always of value irrespective of the maker. It bears its own identity upon itself, and at any time may fall into the hands of those who can use it. A properly made skin made by a savage is of as much importance as one made by Mr. Ridgway, except, perhaps, for sentimental reasons. Some of our most valuable data has been gathered from old collections made by "mere collectors." As much cannot be said for egg-collections. Egg-shells can, in the great majority of cases, be only identified by the label and data attached, and this can never, in any case, be any more reliable than the knowledge of the one that wrote it. Their identity is but the opinion of one man, and once the record is made, mistakes can never be corrected. Add to this that, in many cases, absolute identification is impossible to make without taking and preserving the parents, and that at all times the utmost care must be taken to make sure that the eggs really belonged to the supposed parents, and we have ample reason for doubting what little value there is in the "mere collector" of eggs.

Mr. Lucas says that his letter must not be taken too seriously, thereby admitting that his words are but an apology and not a justification, and it is well that he does add that qualifying statement when he comes to speak of the comparative values of Old Squaws and Great Auks. I would not like to offer him a skin of the latter in straight exchange for one of the former. He would likely defend his eagerness to trade on good, scientific grounds.

The mention of the name of Sir Alfred Newton as a defender of the oölogist, made me naturally turn to his Dictionary of Birds, but I find that he does not seem to deem the word oölogy as of sufficient importance to even mention it as a separate heading, and only refers to it under the heading of "egg," p. 182. This edition is dated 1899, and seems to indicate that with years a riper judgment has considerably altered his opinions on this question. I quote what he says about it:

"It is, therefore, eminently pardonable for the victims of this devotion to dignify their passion by the learned name of 'Oölogy,' and to bespeak for it the claims of a science. Yet the present writer—once an ardent follower of the practice of birds'-nesting, and still, on occasion, warming to its pleasures—must confess to a certain amount of disappointment as to the benefits it was expected to confer on Systematic Ornithology, though he yields to none in his high estimate of his utility in acquainting the learner with the most interesting details of bird-life. . . .'' This seems to sum up the question in a few words that I have taken considerable space to state. The apologetic tone that is so evident in Mr. Lucas' letter and the editorial of Mr. Grinnell's in 'The Condor,' is most evident here.

In conclusion, I am induced to give the gist of a quotation that floats hazily through the brain—from I know not where—but to the effect that the greatest interest in oölogical work lies in "What contains the egg and what the egg contains."

This may be epigrammatic, but we sometimes find a good deal of truth even in an epigram.—P. A. TAVERNER, Highland Park, Mich.

Plumages of the Robin

The colored plate of the Robin, published in this number of BIRD-LORE, shows the female as duller than the male. Often, however, the sexes cannot be distinguished in color, the female being fully as bright as a richly colored male.

Notes from Field and Study

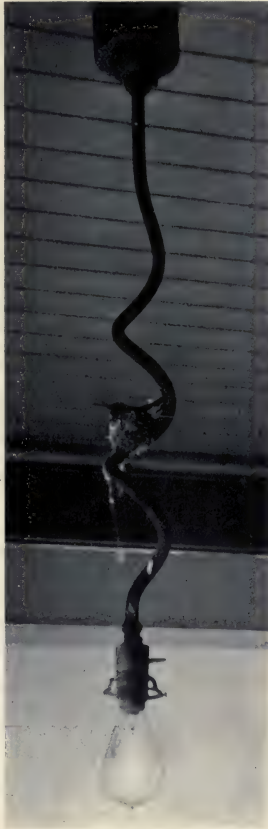
A Hummingbird That Wanted Light

The accompanying picture shows the nest of a Broad-tailed Hummingbird built in a most peculiar situation. I presume it to have been the above-named species, as that is the most common one in this locality, but as only the female was seen I cannot be positive, for the females of the Broad-tailed and Rufous-backed Hummers are too much alike to be told apart unless one has the specimens in hand. This nest was built, as the photograph shows, on an electric light fixture on the porch of a residence in Colorado Springs. The light is directly in front of the front door of the house, and so close to it that the screen door, which swings out, comes within a few inches of the lamp when opened. It was July 18 when the picture was taken. At that time people were passing in and out quite frequently, and sitting on the porch much of the time, but they did not seem to disturb the bird.

The picture shows how the nest was placed on the fixture much better than I can describe it. In taking the picture I must have been at work over a quarter of an hour, but the bird never budged, though I was fussing about with a step-ladder, using that for a support for the

camera, in order to get somewhere near to a level with the nest. Several exposures were made, the longest of a minute, the others less, but all were time exposures, and not a single negative shows any trace of the bird having moved.

Two young were successfully reared in the nest and flew away. The parent bird was seen to come back once after the young had left, examine the nest, and then depart. Possibly, of course, this may have been another bird attracted by the sight of the nest. It certainly seems to be a very remarkable instance of confidence on the part of a bird, when one considers the publicity of the location and the constant disturbance the bird was subjected to by people passing in and out, and moving about on the porch.—EDWARD R. WARREN, *Colorado Springs, Colo.*



The Feeding Habits of the Blue Jay

In the November-December, 1906, number of *BIRD-LORE*, the Editor offers a welcome to the testimony of ornithologists from the Mississippi valley upon the feeding habits of the common Jay. It was my good fortune, through a period of nearly twenty years, to be an interested observer of bird-life in that region, principally along the Baraboo and Wisconsin rivers.

The Jay, like the poor of the scriptural passage, was always with us, summer and winter. In the latter season he frequented largely the corn-cribs of the farmers, and would even come familiarly into the woodshed of the house where we lived in the edge of the village. As a boy I liked the sociable fellow in winter; but when the spring and summer came the Jay was hated by all the other birds, and I could not help sharing in their feeling. In the "oak openings," as we called them, along the edge of the prairies, he was the one sly and ferocious robber of eggs and young birds. The Migrant Shrike made his feather-lined nest in the locusts or amid the thorny depths of the osage orange hedges, and he took also its occasional toll of a Sparrow in summer and Nuthatch in winter. But I have never seen the birds gather in screeching flocks against the Shrike as I have seen and heard them with the Jay. My remembrance of the Jay's depredations upon the young of birds recalls more especially his greed for the young of the Baltimore Oriole. With the exception of the regions along the river-bottoms there were few elms and maples, and the Orioles built their nests most often in the top branches and twigs of the bur-oak. These were sufficiently stiff to permit of so large a bird as the Jay, perching upon them and making of the young Orioles an easy prey.

But the robber was not particular in his choice. All the birds hated him, and he preyed upon the eggs and young of all.

May I also add this, however, as a possible explanation of the varying observation and verdict of different bird-students as to the habits of the Jay. His feeding habits may be different in different localities, and even at different times. I state this from my observations of another species of birds. That other species is the Bronzed Grackle. The western sloughs and river-bottoms fairly swarmed with this Grackle, and yet, in all the twenty years of my residence in Wisconsin, I never saw a Grackle molest a nest, or eat either egg or young.

In the East I have lived now for something over thirty years, always and in many different localities, taking deep interest in the birds. But until I came to my present place

of residence I never saw a Grackle rob a bird's nest. But eleven years ago, on coming to Litchfield, the marauding habits of the Purple Grackle were forced upon my notice to such an extent that if it had been my only experience with the birds I should have said that their chief diet during the nesting season is made up of the eggs and young of other birds. These depredations went on through a period of three or four years. The Robins were the special victims. Hardly a nest in the apple trees about our door, and, in so far as we could see, in the orchard of our neighbor, escaped. The constant bickerings of the Robins and the harsh cry of their enemies under attack, quite spoiled our spring-time pleasure. I have seen, at such times, the Grackle making off with fledglings of the Robin which were quite a load for him to carry.

Now here is the strange part of the story:—For four years I have not seen a single depredation of a Grackle upon the nest of Robin or other bird. It is true that the Grackles, during this period, have not been nesting near us in such numbers as they did. But they have been present in the region, and I can only attribute the peacefulness of these later times to a change of habit on the part of the black freebooters. In tropical countries, where the tiger abounds, it is not true that all tigers are man-eating ones; but let the tiger once get a taste of human blood and then he becomes the terror of the villages, lurking in wait and snatching his victims wherever he can come upon them. May not the same be true of the *bird-eating* Jays and Grackles? — JOHN HUTCHINS, *Litchfield, Conn.*

The Blue Jay as a Destroyer

In Dundee, Illinois, while walking down one of its shady streets, I heard a great commotion among the English Sparrows. Glancing up on to the outstretching bough of a box elder, I saw a Blue Jay ferociously tearing to pieces and devouring a young, callow Sparrow just picked out of its nest. It had no feathers on. The nest was conspicuous a short distance off. A friend of mine testifies that she saw at Stevens Point,

Wisconsin, a Blue Jay eating the remains of a young Song Sparrow just filched from its nest on the ground.

If the Blue Jay will confine its diet to the young English Sparrow I am fairly content, and could see a possible way by which we could be rid of some of these miserable rats of the air; but when the question is turned toward a depletion of the beautiful Song Sparrow, there I have to weigh evidence.

The large nests of the English Sparrow are such objective bunches of deformity, perhaps the Jay will go for them sooner than for the diminutive homes of the Chipping or the Song Sparrows, when we could allow the Jay to continue in his depredation. I don't believe every pair of Jays go into this kind of business; yet there is testimony enough here in the West to establish the fact that as much as we delight to see the bird on a cold winter's day, yet he does sometimes develop strong cannibalistic tendencies.—GEO. B. PRATT, *Chicago, Ill.*

The Blue Jay's Food

The appended quotation is from the Boston 'Evening Record' of January 3, 1907. Blue Jays are very plenty here, as well as brown-tail moth nests. I shall watch the Jays most carefully, and if I find this good work is kept up shall be glad to report it to you. It will be interesting to know if you receive any reports of like nature from other sections.—GEO. G. BLANCHARD, *Wilton, N. H.*

BLUE JAY EATS MOTHS AND MOTH EGGS

'Wilton, N. H., Jan. 1.—The Blue Jay is helping to solve the brown-tail moth question. Dr. Hatch reports that he witnessed a sight which will be of interest to all the people of New Hampshire, and it may in a measure help out the brown-tail moth question. While calling upon a patient he noticed a Blue Jay at work on a tree near the window.

"Upon investigating he found it was breaking into the nests of the brown-tail and eating the eggs and the moths themselves. The bird cleaned the tree and was busily engaged on another when the doctor

left. Upon examination he found that every nest had been cleaned. Bird students explain this by saying that the crust has been hiding a great deal of the bird's food, and he is getting what he can find elsewhere."

A Persistent Phœbe

For the past four years a pair of Phœbes has taken possession of a certain spring-house near here. The nest has yearly been destroyed, owing to its near proximity to a much-used path. I was, therefore, greatly surprised, on April 17, 1906, to see a pair building in the same old place. Two days later the nest was completed and contained one egg. The following day I planned to photograph the egg, but I found the rafter stripped of its dainty home.

On May 2, I again found them at work on a new nest where the first had formerly been, but this was likewise destroyed, and so also was a third the following week. Far from being discouraged, however, they began a new structure on the opposite side of the building which protruded into a small pond.

This was also torn down and left the poor birds once more without a home. I anxiously awaited to see what their next move would be. I am sorry to say they soon began a nest in the place where they had lost their first three homes. At first they were successful, and laid one egg; but, alas! this was also taken.

I thought they would give up and try somewhere else, but they went right to work and built a nest on the water-side of the spring-house, far out of reach. This, sixth and last, nest, I am glad to say, was not molested. It was started on June 10, and served as a home for the patient Phœbe's young ones.—L. S. PEARSON, *Wayne, Pa.*

An Unusual Nesting-Site of the American Long-eared Owl

It was in the spring of 1903 (April 13) that I came upon the nest of an American Long-eared Owl placed upon the ground underneath a couple of low, scraggy bushes. The locality in general was a bit of swampy ground, well fringed in by thickets of wil-

low and other water-loving species of shrubs, surrounded on two sides by woodland. Plenty of suitable nesting-sites were to be had in this wood for the asking, so there was no apparent reason for this pair departing so far from their usual habits of nesting in trees. In fact, a nest of the species had been, shortly before, discovered in a hollow limb of one of the trees.

The nest proper consisted simply of a few leaves and fine rootlets laid on the bare ground. No attempt at concealment other than that afforded by the surrounding shrubs had been made. Six eggs were present, oval in shape and pure white.

The female manifested great displeasure at my presence, and her peculiar notes, resembling the moaning meow of a cat, soon brought the male to the scene of action. Although the latter exhibited his annoyance at having his home matters broken in upon, by a sharp snapping of the beak, he was not nearly as determined in his efforts to frighten as the female. She would frequently fly so close to my head and with such a show of courage as to cause me to duck in some trepidation. Upon one occasion, when bending over the nest to secure a better view of its contents, she hissed loudly, accompanying the action with a fluttering movement of her wings and a general ruffling of the entire plumage.

During the period of my stay at the nest the birds kept within a circle of thirty feet. The female was on several occasions within easy reach.

Some few days later I revisited the nest in hopes of gaining a view of the young, but was disappointed to find the eggs broken and the nest abandoned.—A. D. FINKER, *Ann Arbor, Michigan*.

The Bartramian Sandpiper

I have been greatly astonished, in reading "Special Audubon Leaflet No. 6," on Bartram's Sandpiper, to find the statement made three times, that this bird is wholly insectivorous. In Nebraska, at least, like many other birds, it takes what comes most easily. After the wheat is cut, and during migration, it frequents the wheat stubble and gorges itself with the waste grain.

They become, naturally, very fat on this nourishing food. As I used to find them on the rye stubble, commonly in Connecticut, when I was a lad, I presume they were eating rye likewise, but it did not interest me then as now to observe the stomach contents.

All that is said in the 'Leaflet' regarding the confiding nature of these birds and their value in the landscape is perfectly correct. They used to be shot for market straight through the nesting season in Rock county, Nebraska. They should, however, certainly be well protected during the nesting season, and not more than one month be open, as is the case in some states with Quail and other useful birds. I think it highly probable that this liberty would be more beneficial here, and elsewhere, than absolute prohibition. Such is human nature.—J. M. BATES, *Red Cloud, Nebraska*.

Robins and Sparrows

For a number of years I have been an interested observer of the bird-life about my home, but not until last summer did I note that the English Sparrow had begun to trouble the Robins so much that the latter are now seen in fewer numbers than during past seasons. A large lawn near my home has long been the Robins' favorite feeding-place. Sometimes eight or ten of these birds might be seen, but this year (1906) they have almost deserted it, and it is rare to see more than two there at the same time. The cause of this is as follows: As soon as a Robin alights and begins to search for a worm, an English Sparrow will fly down and follow it closely. When the Robin pulls forth the worm the Sparrow rushes in, seizes it and flies off a few feet to swallow it. The Robin looks around in a bewildered sort of way but makes no attempt to recover the stolen morsel, and either goes to hunting again or flies away. Sometimes he has time to secure a worm before the Sparrow is back, but most often not. This performance is gone through with nearly every time a Robin visits the lawn, so that now they rarely visit the place where once they were so common.—C. M. ARNOLD, *Woonsocket, R. I.*

Book News and Reviews

THE WARBLERS OF NORTH AMERICA. By FRANK M. CHAPMAN, with the coöperation of other ornithologists, with 24 full-page colored plates by Louis Agassiz Fuertes and Bruce Horsfall and 8 half-tones of nests and eggs. D. Appleton & Co., New York City. 8vo., 320 pages.

However jaded may be the palate of the weary bird-student who has swallowed the nature-books of the last few years, he will assuredly experience new and pleasant sensations on turning the pages of Mr. Chapman's latest contribution to his particular needs. It is a work valuable to the expert and indispensable to the amateur who would know all that there is to know about the life and surroundings of the Warblers of North America, so fitly called the "best gems of Nature's cabinet." It contains a wealth of biographical and other detail that is positively bewildering, but the arrangement is good and the volume well printed and of convenient size.

The plan of the work, which the author rightly hopes "adequately reflects existing knowledge of the North American *Mniotiltidæ*," is admirably carried out in every detail. Each of the fifty-five species and nineteen subspecies peculiar to the continent is treated separately, with a colored figure of each species. These plates, by Fuertes and Horsfall, having already appeared in *BIRD-LORE*, need no commendation here. There are, in addition, a dozen new half-tones illustrating nests and eggs. An introduction of thirty-six pages is devoted to 'General Characters,' 'Plumage,' 'Distribution,' 'Migration,' 'Song,' 'Nesting Habits,' 'Food' and 'Mortality,' the remaining 301 covering the individual species. Under each of these will be found first, its 'Distinguishing Characters,' followed by 'General Distribution,' 'Summer Range,' 'Winter Range,' 'Spring Migration,' 'Fall Migration,' 'The Bird and its Haunts,' 'Song,' 'Nesting-Site,' 'Nest,' 'Eggs,' 'Nesting Dates' and 'Biographical References'—in short, nothing is lacking save the purely technical which would be out of place

in a volume of this kind. This brief outline of contents, however, gives very little idea of the valuable contributions to the life-histories of the birds which have flowed from the author's own pen or have been judiciously culled here and there from the writings of others. Indeed, our author has been so generous in crediting the contributions of others that he has, we think, too modestly put himself in the background while covering his retreat with quotation marks. There has also been much original matter contributed to the book; Professor Cooke's migration data and Mr. Gerald Thayer's description of songs and habits, being especially noteworthy.

Among the numerous praiseworthy features of the book may be noted the efforts to describe songs. Now, not for a moment should the current use of 'cheps' and 'zees' and even musical notation be discouraged; but it must not be forgotten that, at best, these symbols merely jog the memory of the individual who writes them in his note-book and mean nothing to ears that have not heard the original music. Inasmuch as most bird notes are far removed from human rendition, a sentence, such as "you must come to the woods, or you won't see me," which Mr. Chapman felicitously attributes to the Hooded Warbler, is quite as likely to rouse the memory echo as any jumble of meaningless syllables. We note, too, with regret, that the 'teacher' song of the Oven-bird is merely scotched. Any one who can put the accent on the first syllable certainly gets the cart before the horse.

The care in the descriptions of plumages and the elaborateness of the tables of migration data are also features deserving of especial mention, and there is a novel grouping of the Warblers according to their songs.

Belief in the stability of popular names receives a severe shock in the loss of our old friend, the Maryland Yellow-throat, that must now be known as the Northern Yellowthroat with a Latin name a foot long. We

could have spared the less familiar Connecticut Warbler or the Tennessee, but this is indeed too much for our equanimity. Cruel fashion deprives us of our birds, while a crueler science deprives us of the very names by which they might linger in our memories!

Some critics might take exception to the contents of that ornithological scrap-basket, the 'Hypothetical List' or object to *Oporornis* as a full genus, but such minor matters in no wise affect the general excellence of the work. It is one that reflects great credit on its author and will be nothing short of a boon to everybody who wants to learn the best of everything that is known about the North American Warblers—J. D., Jr.

BIRD-CRAFT. A Field Book of Two Hundred Song, Game and Water Birds. By MABEL OSGOOD WRIGHT. With eighty full-page plates by Louis Agassiz Fuertes. New York, The Macmillan Company, 1907. 12mo, 319 pages.

The contents of this standard book have long since passed with honor the examination of the reviewer, and we call attention to this new edition only to comment on the new dress with which 'Bird-Craft' celebrates its twelfth year. The text is printed on unglazed paper, adding greatly to the pleasure with which the book is read, while Mr. Fuertes' bird portraits ('drawing' is far too indefinite a term to apply to the characteristic work of this artist) are effectively reproduced as plates on the coated paper half-tone engravings require. The corners of the pages are rounded, the cover is flexible, and, in short, the book's makeup makes it closely conform to the requirements of its subtitle.—

F. M. C.

THE BIRDS OF AMHERST AND VICINITY. By HUBERT LYMAN CLARK. Second edition; revised and rewritten. Amherst, Mass., Press of Carpenter and Moorehouse, 1906. 12mo, 103 pages.

The original edition of this list, published in 1887, has been long out of print, and the present edition has been prepared to meet the demand which every authoritative, easily accessible, local list creates for itself. Ten species are added to the list of 1887, making 185 which are included in the present list. A 'Field Key' of twenty-one pages is a new

feature, while the 'Artificial Key' has been remodeled. Brief descriptions of plumage are included under each species, with the remarks on its local status, making it possible for the student to begin his study of Amherst birds with no other help than this book affords. The nomenclature is several years behind the times, but since the A. O. U. 'Check-list' now in preparation promises to make our current classification and nomenclature quite out-of-date, it is probably advisable to await its appearance and take the medicine at one dose.—F. M. C.

BIOLOGICAL CONDITIONS IN NEBRASKA. By R. H. WOLCOTT. Studies from the Zoölogical Laboratory of the University of Nebraska. No. 68. Lincoln, Neb. December 1906. Pp. 23-34.

Within a few pages Dr. Wolcott draws a clear and comprehensive picture of faunal conditions in Nebraska. The state is divided into a 'Missouri Wooded Region,' a 'Prairie Region,' a 'Sandhill Region,' a 'Plains Region' and a 'Pine-Woods Region.' In other words, Nebraska is a true connecting link between eastern and western bird-life. In its eastern part many arboreal eastern birds find the western limit of their range, the avifauna of the plains is fully developed in its arid western portions, while the intrusion of wooded foothills in the north-western part of the state marks the eastern limits of the range of a number of western arboreal species. Small wonder, then, that 400 birds have been recorded from Nebraska,—a larger number, we believe, than has been found in any other state except California and Texas.—F. M. C.

The Ornithological Magazines

THE AUK.—There is much that is common-place in the January 'Auk,' for it can hardly be expected to furnish new thrills every quarter; still it is very pleasant for its readers to wade in fancy up to their waists, with Mr. C. G. Abbott, in the mud and water of the Newark marshes, and study at close range such denizens as the Florida Gallinule, Least Bittern, Pied-billed Grebe, and others whose presence so near great centers of population was hardly to have been suspected. Mr. C. W. Beebe's 'Notes

on the Early Life of Loon Chicks' is also instructive. He watched a pair of youngsters in the New York 'Zoo' and their habits, taken in connection with observations on other species, convince him that swimming, feeding, flight, call-notes and other phenomena are congenital instincts,—so away goes the pretty fable of the fond parents teaching their offspring to fly!

Mr. F. M. Chapman now tells us that the Maryland Yellow-throat did not originally come from Maryland, bravely slaughters his Florida form, *ignota*, on the altar of synonymy, and leaves us with two races east of the Rockies,—the Southern Yellow-throat, *trichas*, and the Northern Yellow-throat, *brachidactyla*, for which conclusions let us be profoundly thankful.

A fresh batch of Audubon-Baird letters are presented by Mr. R. Deane, and they contain many bits of information concerning birds and beasts of America as known fifty years ago.

There is a local list of the spring birds of Tishomingo county, Miss., by A. Allison, and one of those of Cobalt, Ontario, by F. C. Hubel. There is a strange lack in the latter of several species that must have been overlooked, and the form of Downy Woodpecker should be *medianus*, not "*pubescens*."

Mr. J. H. Fleming's accurate list of the birds of Toronto is completed in the present number. Two hundred and ninety species and subspecies are recorded from a somewhat limited area. Among 'General Notes' 'A Migration Disaster in Western Ontario' is worthy of special attention. Thousands of birds were drowned in Lake Huron, overtaken by the snow and cold of October 10, 1906. In closing, a review of the proceedings of the Twenty-fourth Congress of the A. O. U. may be noted, also an article by Dr. J. A. Allen on the status of the Rio Grande Seedeater.—J. D., JR.

THE CONDOR.—Two numbers of 'The Condor' have appeared since the last review in BIRD-LORE. The November number opens with the first part of Finley's 'Life History of the California Condor,' illustrated with photographs by Bohlman, which include some of the most remarkable pictures

of birds ever taken with a camera. The author has made a wonderful addition to our knowledge of the nesting habits and development of the young of this rapidly disappearing bird. Four other papers on habits of western birds also deserve mention. These are Bowles' account of 'The Kennicott Screech Owl'; Sharp's description of 'Nesting of the Red-bellied Hawk' in San Diego county, California; Miss Head's 'Observations of the Notes and Ways of Two Western Vireos' and Willett's note on 'The Southern California Clapper Rail Breeding on Fresh Water.' The editor reviews the status of the Hutton Vireo, recognizing three forms: *Vireo huttoni*, which is common west of the Sierras; *V. h. oberholseri* in San Diego county, and *V. mailliardorum* on Santa Cruz Island. An editorial on 'Better Vernacular Names' suggests a number of changes chiefly in the interests of utility, uniformity, and the substitution of English names now in common use for the 'book names' now applied to several species in the A. O. U. check list.

In the January number, the two leading articles are on the habits of the Magpie in Colorado. The first is by Warren, on 'Photographing Magpies,' and the other by Gilman, on 'Magpies on the La Plata.' Finley contributes an account of his work 'Among the Gulls on Klamath Lake,' in Southern Oregon in 1905. A good illustration of the opportunities for original observations even in localities supposed to be well known is given in Carriger and Pemberton's 'Nesting of the Pine Siskin in California.' In 1903 and 1904 the authors examined some 25 sets of eggs of this species in San Mateo and San Francisco counties. In view of the fact that this section has been the collecting ground of ornithologists for forty years or more, and was supposed to be as well-known as any part of the state, the record is as remarkable as it is interesting. Among the shorter notes is a record of the nesting of the English Sparrow at Newhall, Los Angeles county, May 19, 1906. This record marks the first entrance of the bird into southern California and indicates a decided advance in the distribution of the species in the Southwest.—T. S. P.

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OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

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Bird-Lore's Motto:

A Bird in the Bush is Worth Two in the Hand

THE last issue of 'The Warbler' contains the unwelcome news that this publication has been discontinued. Mr. Childs has published some excellent material in this magazine, and we regret to see that his enterprise has not been accorded the support it deserves.

This makes the third journal wholly or in part devoted to birds, which has suspended publication within a year, 'The Warbler' being preceded by 'American Ornithology' and 'Our Animal Friends.' All merited a better fate; for we believe that they came to their end not through failure on the part of their editors to meet the demands of their readers.

Are we to infer, then, that the demise of these periodicals indicates a decreased interest in bird study on the part of the public to which they catered? Personally, we should not hesitate to reply to this question with an emphatic "No," and we base our answer on the experiences of an unusually active lecture season which has brought us in contact with the bird-loving public in many and widely separated districts, on our knowledge of the sales of bird books, and on the ever-widening field of Audubon educational work.

Why, then, have the magazines mentioned been forced to suspend publication? Doubtless they have not been "forced" to suspend, but probably they have been discontinued because they have not met with the success their originators anticipated.

Their failure is not to be attributed to loss

of interest on the part of the public, but rather to the fact that no ornithological magazine has ever secured a circulation large enough to assure it the patronage of advertisers, and without advertising the most prosperous magazine of the day could not exist as a profitable proposition.

Whether a sufficient number of possible subscribers exist to make a bird magazine profitable, from a commercial point of view, is open to question, but assuredly the means has not as yet been devised for bringing such a magazine to their attention. General advertising scores too many misses for each hit made to make it profitable. Circulars rarely seem to reach the mark, and if the publisher cannot secure the coöperation of his readers, he may be assured a handsome deficit at the end of the year.

THE Audubon education work to which reference was made above is destined to exert an influence which only those intimately concerned with its development appreciate. When Mr. Willcox endowed the National Association of Audubon Societies, bird-lovers doubtless thought of the numerous practical ways in which the resulting income, could be employed to protect birds, but few doubtless realize the far-reaching influence the expenditure of a portion of this income for free Educational Leaflets will have on the future of North American ornithology. As long as this sum will supply the demand, no teacher or pupil need lack first-class bird literature, and the thousands and hundreds of thousands of these little monographs, with their attractively colored plates should reach, an audience forever deaf to the publisher who has profit in mind.

A WORD of explanation for the unfortunate delay in the appearance of 'The Warbler Book' is due the many inquirers who were led to expect its publication in February. Its tardiness is due to that 'congestion of trade' of which we hear so much in other branches of commerce. Paper that had been promised early in January was not delivered a month later and, as a result, the efforts of author and printer to be prompt, went for naught.

The Audubon Societies

SCHOOL DEPARTMENT

Edited by MABEL ÓSGOOD WRIGHT

Address all communications to the Editor of the School Department, National Association of Audubon Societies, 141 Broadway, New York City

APRIL

April is the dawn of the natural year. March is a spring month merely by courtesy—a sort of delusive “twilight,” as Wilson Flagg said of it—through which familiar shapes flit, appearing and disappearing like wind-blown phantoms. March may respond to the sudden lure of the south wind and, yielding a little, show us a few hepaticas on a sheltered bank, a trembling group of snowdrops in a garden corner, or the raised cowl of the skunk-cabbage in the still ice-edged marsh. The flocks of Robins, Bluebirds and Fox Sparrows may bring melody to the leafless trees, while the Meadow-lark returns to the lowland pastures in company with his squeaking and creaking cousins, the Grackles, Redwings and Cowbirds, and the Phoebe vies with the Chickadee in telling his name about the sheds and outbuildings. Or March may mean that the hope born of the lengthened days is deferred by snow-squalls that check both insect and vegetable life and drive the early birds disconsolately to mope in cover.

But with April all is different. To be sure, the old fields lie sere and brown for the greater part of the month, edged and threaded here and there by green ribbons born of watercourses, while on hillside and open woodlands the verdure is of moss rather than grass; yet everywhere the change quivers on the air, and the cheerful chorus of the *hylas* rises from the reed-beds and makes the heart beat faster. For after all, northward from the middle part of the country, it is by sounds rather than by sight that the season takes possession of the senses and makes us realize that it has come. It is by the bird and not by leaf or flower that Spring first proclaims herself; the flower lies next to the heart of earth, and one would think should be the first to feel the pulse of renewal; but no, it is to the bird of the air that the vision below the visible horizon belongs and, as if seeing the glow of the spring sun before it has reached us, the birds arrive as heralds to proclaim it.

Already, when April comes, the Woodcock is practicing his sky dance, and a snow flurry during the first half of the month may whiten the back of his mate brooding on her nest among the protecting leaves with which her colors blend. In April two bird families send their members with a rush. The flocks of Fox Sparrows increase and pause on their northerly migration. The White-throats, traveling in still more leisurely fashion, pause

wherever there are seeded weeds and grasses, and mingle their exquisite little piping song with that of the Purple Finch and Vesper Sparrows; while the Song Sparrow, that was perhaps present as an individual all winter, becomes legion in a single night, and presently the tremolo of the Chipping Sparrow, insectlike though of different quality, sounds at dawn from the ground or a low bush where he sits with head thrown back in rapture.

In April, toward the middle of the month, the Swallows return to us, with their pretty call notes and lisps, and the ear and eye are often piqued by the voices and plumage of many Warblers. The Myrtle, that has been with us at intervals all winter, is easily named; then there comes the Pine Warbler and the Louisiana Water-Thrush, a Warbler that suggests the larger Wood Thrush. The Black-throated Green and the Black and White Creeping Warblers, the latter mistaken frequently by the novice for a diminutive Woodpecker, may be expected, and, should the last week in April be fair and the leaves of the birches and swamp maples old enough to throw a faint shadow, in reply to the golden signal of the willows, we may prepare to welcome deputations from the families of Thrushes, Wrens and Thrashers, the Wood-Thrush, Catbird, Brown Thrasher and House Wren; and when we see the latter tip-tilting and scolding about the repairs necessary to his last year's residence, we know that spring, in all its promise and fullness, is but lingering around the corner, coyly arranging her drapery before dancing into our sight.—M. O. W.

NATURE STUDY ORGANIZATIONS

The value of nature study, *properly conducted*, as a training to the powers of observation has long been conceded; moreover, its direct value in teaching the true economic relations to man of objects animate and inanimate is well established. The more we study nature the better we learn that part of nature's balance which best conserves human interests. Such studies have enabled us to distinguish between friends and enemies among the lower creatures; to realize how the former are beneficial and the latter harmful.

It must be conceded, also, that "in union there is strength"; that properly conducted organizations for the study and preservation of the lower forms of life accomplish more than scattered individual effort.

Admitting all this, conscientious teachers are anxious to provide for the nature-study needs of the pupils under their charge, but they sometimes are at a loss to create that interest which must underlie all successful educational work. The writer belongs to a natural history society which is remarkable because of its success in maintaining deep interest among its members, and the consequent good attendance at meetings, two things unfortunately rare in such organizations.

He also has had the privilege of attending, by invitation, a meeting of a bird club composed of boys of a New Jersey school, and he was expected to offer suggestions about the management of the club and its method of conducting meetings; but, after critically noting the methods employed, he could make no suggestions for their improvement.

There are certain features in the management of these two organizations which so obviously contribute to their remarkable success that they are here used as examples, in the hope that other organizations may derive from them hints that will lead to a like measure of success.

The natural history clubs above referred to have the usual officers, which are elected annually; meetings are held twice a month, and are presided over by the president, or, in his absence, by the vice-president or some member temporarily selected; the secretary keeps the minutes, which must be read and approved at a subsequent meeting; the dues are \$1 per year.

Occasionally a member gives a stereopticon talk or some other special program, but the usual order is to pass briefly through the routine business, roll-call, reading minutes of last meeting, election of members proposed at last meeting, proposal of new members, unfinished business, new business. Then comes "items of interest," under which head the president calls on each member in turn for any matter of interest he may have to relate, and general discussion of such items takes place. In a membership almost entirely amateur it is surprising what an amount of interesting and valuable information is brought out, and the discussion is so informal that there is no atmosphere of undue stiffness or restraint. Following the items of interest, all of the members exhibit specimens, rare or common, many being of the simplest form, yet all are of interest to those present.

The boys' bird club referred to is nearly ideal and will continue to be so while its original methods are adhered to. The ages of the members range from twelve to sixteen years; there are the usual officers and parliamentary methods of conducting meetings; the educational leaflets of the National Association of Audubon Societies are used as a basis of study. A leaflet is allotted to each member to study and report on, three or four members at each meeting reading essays on as many different birds, studied from the leaflet, from any other accessible source, and as far as possible from original observations. In these essays, quotations are given from authorities, with remarks on the quoted statements from the experience of the boy observer, much of the matter given being entirely original.

Prizes are given for the best essay during a given period.

Another feature is the reading, by each member, of a list of the birds observed since the last meeting, and prizes are given for the best lists made during a given period. A few of the boys have cameras and photograph bird life, and here again prizes reward the greatest measures of success.

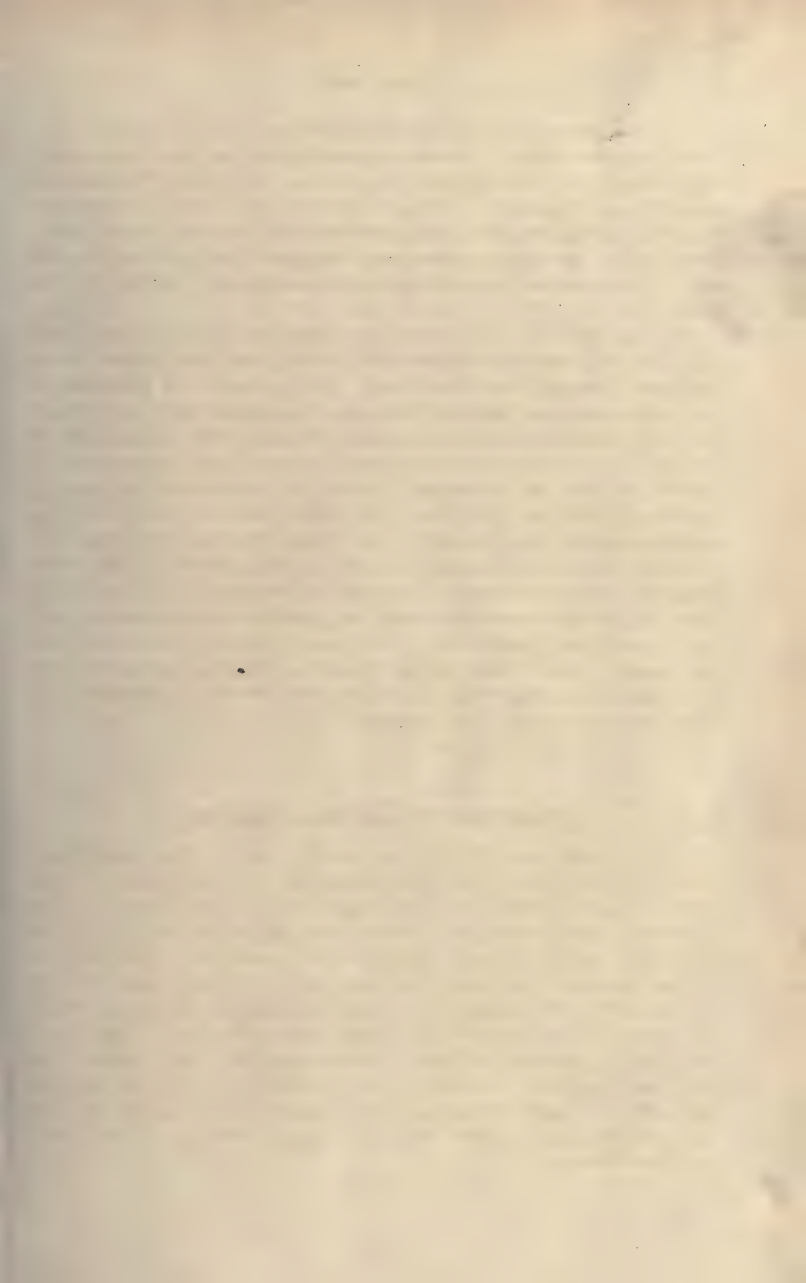
The boys are careful in their photographing not to harm or disturb the birds; they aim to be very accurate in preparing lists, and they never collect birds or eggs, but only nests after the birds have left them. The meetings are held in the evening, twice a month, at the school. They have field days, when they go out Saturday in small parties to find nests and record observations. They are always careful never to remain long in the vicinity of a nest. While a teacher fosters the club, the management is entirely with the boys.

Here is the problem of nature study solved; study and work are made play; no time is lost from other essential studies; powers of observation are developed; healthful recreation is had; there is practice in parliamentary methods of conducting meetings; information is acquired which in the future life of the students will benefit them in a thousand practical ways; and all the time the direction of their diversion, recreation and surplus energy is turned into safe and improving channels and away from the innumerable temptations that beset boys. The writer has yet to hear of the boy who earnestly and conscientiously studied nature who became a bad man.

The success of these two organizations is due to the way in which their programs are made attractive. The same secret applies to man as well as boy. Put an attractive program before the members, let them manage, suggest, discuss, and, above all, *observe* and report their observations and leave the success to them. They will take care of that part, and nature study can be conducted not only without interfering with, but to the advantage of all other practical studies—B. S. BOWDISH.

THE VALUE OF BLACKBIRDS

"Kalm states, in his 'Travels in America,' that in 1749, after a great destruction among the Crows and Blackbirds for a legal reward of three pence per dozen, the northern states experienced a complete loss of their grass and grain crops. The colonists were obliged to import hay from England to feed their cattle. The greatest losses from the ravages of the Rocky Mountain locust were coincident with, or followed soon after, the destruction by the people of countless thousands of Blackbirds, Prairie Chickens, Quail, Upland Plover, Curlew, and other birds. This coincidence seems significant, at least. A farmer from Wisconsin informed me that, the Blackbirds in his vicinity having been killed off, the white grubs increased in number and destroyed the grass roots, so that he lost four hundred dollars in one year from this cause."—FORBUSH, 'Useful Birds and their Protection.'





RED-WINGED BLACKBIRD

(UPPER FIGURE, MALE; LOWER FIGURE, FEMALE)

Order—PASSERES
Genus—AGELAIUS

Family—ICTERIDÆ
Species—PHENICEUS

THE RED-WINGED BLACKBIRD

By MABEL OSGOOD WRIGHT

The National Association of Audubon Societies

EDUCATIONAL LEAFLET NO. 25

"Among all the birds that return to us in April, which is the most striking and most compels attention?" asked a bird-lover of a group of kindred spirits.

"The Fox Sparrow," said one who lived on the edge of a village where sheltered wild fields stretched up hill to the woodlands. "Every morning when I open my window I can hear them almost without listening."

"The Phoebe," said another, who was the owner of a pretty home, where many rambling sheds broke the way from cow-barn to pasture.

"The Whippoorwill," answered a third, a dweller in a remote colony of artists in a picturesque spot of cleared woodland, where the ground dropped quickly to a stream.

"No, the Woodcock," said her nearest neighbor, a man whose cottage was upon the upper edge of these same woods, where they were margined by moist meadows and soft bottomlands—a man who spent much time out-of-doors at dawn and twilight studying sky effects.

"And I think it's Red-winged Blackbirds," cried the ten-year-old son of the latter; "for when I go out up back of the trout brook by the little path along the alders near the squashy place where the cattails grow in summer, you've just got to hear them. You can't listen to them as you do to real singing birds, for they make too much noise, and when you listen for a bird it's got to be still at least in the beginning. Sometimes they go it all together down in the bushes out of sight, then a few will walk out up to the dry Meadowlark's field with Cowbirds, or maybe it's their wives, and then one or two will lift up and shoot over the marsh back again, calling out just like juicy sky-rockets. Ah, they're it in April before the leaves come out." And, in spite of difference of viewpoint, the group finally acknowledged that the boy was right.

In point of coloring the Redwing is faultlessly plumed—
The Redwing's Personality glossy black with epaulets of scarlet edged with gold—the uniform of a soldier, and this, coupled with the three martial notes that serve him as a song, would make one expect to find in him all the manly and military virtues. But aside from the superficial matter of personal appearance, the Redwing is lacking in many of the qualities that endear the feathered tribe to us and make us judge them, perhaps too much by human standards.

When Redwings live in colonies it is often difficult to estimate the exact

relationship existing between the members, though it is apparent that the sober brown, striped females outnumber the males; but in places where the birds are uncommon and only one or two male birds can be found, it is easily seen that the household of the male consists of from three to five nests each presided over by a watchful female, and when danger arises this feathered Mormon shows equal anxiety for each nest, and circles screaming about the general location. In colony life the males oftentimes act in concert as a general guard, being diverted oftentimes from the main issue, it must be confessed, to indulge in duels and pitched battles among themselves.

The Redwing belongs to a notable family—that of the **His Family** Blackbirds and Orioles—and, in spite of the structural similarities that group them together, the differences of plumage, voice and breeding habits are very great.

The Cowbird, the Redwing's next of kin, even lacks the rich liquid call note of the latter and the lack of marital fidelity on the part of the male is met in a truly progressive spirit by the female, who, shirking all domestic responsibility, drops her eggs craftily in the nests of other and usually smaller birds, who can not easily resent the imposition. Though a strong proof of the unconscious affinity of race lies in the fact that these young foundling Cowbirds invariably join the parent flocks in autumn instead of continuing with their foster mothers.

The Meadowlark with the true spring song, who hides his nest in the dry grass of old fields, is also kin to the Redwing and the Bobolink too, the vocal harlequin of the meadows and hillside pastures. The Orchard and Baltimore Orioles, also next of kin, are skilled musicians and model husbands.

Still another plane is to be found in the Redwing's dismal cousins, the Grackles—Purple, Rusty, Bronzed and Boat-tailed—all harsh of voice and furtive in action, as if a Crow fairy had been present at their creating and, endowing them with ready wits, had, at the same time, deprived them of all sense of humor and cast a shadow upon their happiness. For a Grackle is gloomy, even during the absurd gyrations of his courtship, and when, in autumn, the great flocks settle on lawns and fields and solemnly walk about, as they forage they seem like a party of feathered mutes waiting to attend the funeral of the year; and this trait somewhat tinctures the disposition of the Redwing before and after the breeding season.

The Redwing, in one of his many subspecific forms, and **His Country** masquerading under many names,—Red-shouldered Blackbird, American Starling and Swamp Blackbird,—lives in North America from Nova Scotia and Great Slave Lake southward to Costa Rica. The Redwing, as known to us of middle and eastern North America, breeds in all parts of its United States and Canadian range, though it is more numerous by far in the great prairies of the upper Mississippi valley, with their countless backwater sloughs, than anywhere else. It is in regions of

this sort that the great flocks turn both to the fall-sown grain, as well as that of the crop in the ear, causing the farmers the loss that puts a black mark against the Redwings. Yet those that dwell east of this area, owing to the draining and ditching of their swampy haunts being in much reduced numbers, are comparatively harmless.

During the winter months the Redwings are distributed throughout the South, though stragglers may be occasionally seen in many parts of their summer range. Exactly why they begin the southward migration in September and end it with the falling of the leaves in late October, it is not easy to guess; for the food-supply is not



NEST OF RED-WINGED BLACKBIRD

Photographed from nature by C. G. Abbott

at an end and they do not dread moderate cold, else why should they be in the front rank of spring migrants?

The last of February will bring a few individuals of the advance guard of males. In early March their calls are heard often before the ice has melted and the hylas found voice; yet, in spite of this hurried return, the nesting season does not begin until the middle of May; and so for two months and more the flock life continues, and foraging, fighting and general courting serve to kill time until the remote marshes show enough green drapery to hide the nests.

As a nest-builder the Redwing shows much of the weaver's skill of its Oriole cousins, though the material they works with is of coarser texture, being fastened firmly to low bushes or reeds and woven of grass and the split leaves of reeds and flags, all nicely lined with soft grasses and various vegetable fibers. Often, like that of the Marsh Wren, the nest will be suspended between three or four reeds and so firmly knit that it resembles one of the four-legged work-baskets that belonged to the 'mother's room' of our youth. The pale blue eggs of the Redwing are particularly noticeable from the character of the markings that thickly cover the larger end, for they seem the work of a sharp scratching pen dipped in purplish black ink and held by an aimless human hand, rather than the distribution of natural pigment.

An eater of grain though the Redwing is, and a menace to the farmer in certain regions, Professor Beal concedes to him a liberal diet of weed seeds and animal food, itself injurious to vegetation. Dr. B. H. Warren, who has made a wide study of the food habits of this Blackbird, says: "The Redwing destroys large numbers of 'cutworms.' I have taken from the stomach of a single swamp Blackbird as many as twenty-eight 'cutworms.' In addition to the insects, etc., mentioned above, these birds also, during their residence with us, feed on earthworms, grasshoppers, crickets, plant-lice and various larvæ, so destructive at times in the field and garden. During the summer season, fruits of the blackberry, raspberry, wild strawberry and wild cherry are eaten to a more or less extent. The young, while under parental care, are fed exclusively on an insect diet." These facts should make us of the East welcome rather than discourage the Redwing; for this is one of the species of familiar birds that must become extinct in many localities, owing to the circumstance so desirable in itself of reducing the waste marsh lands, and, though later in the year other birds replace him acceptably, March and April would seem lonely without the Redwing, for then, as the child said, "You've just *got* to look at him."

Questions for Teachers and Students

Are there other species of Redwing than the one pictured? Trace its distribution. How far north does it breed? At what season does it leave for the South in autumn? When does the spring migration begin? What sort of country does the Redwing inhabit, high or low ground? Does it nest immediately on its return? Where is the nest built and of what materials? Do Redwings mate in pairs like Robins and Bluebirds? Are the males and females feathered alike? What color are the eggs? To what family does the Redwing belong? Name some of his kindred.

The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by WILLIAM DUTCHER

Address all correspondence, and send all remittances for dues and contributions, to the National Association of Audubon Societies, 141 Broadway, New York City

Membership in the National Association

- \$5.00 paid annually constitutes a person a Sustaining Member
- \$100.00 paid at one time constitutes a Life Membership
- \$1,000.00 paid constitutes a person a Patron
- \$5,000.00 paid constitutes a person a Founder
- \$25,000.00 paid constitutes a person a Benefactor

FORM OF BEQUEST

I do hereby give and bequeath to THE NATIONAL ASSOCIATION OF AUDUBON SOCIETIES FOR THE PROTECTION OF WILD BIRDS AND ANIMALS (Incorporated), of the City of New York,

.....

.....

.....

Legislation

This issue of BIRD-LORE might well be called the legislative number, as all of the matter in the Executive Department will relate only to legislative proceedings throughout the country.

While much of the story will show that the Association has been successful in many of its attempts for better legislation and the defeat of bad legislation, yet, unfortunately, in some important cases the forces that have combined against us have been successful. In the entire experience of the President of the Association in legislative work, the year 1907 surpasses all the others in the number of bird and game bills that have been introduced; they certainly number several hundred. It is true that many of them are local bills of little importance, but, on the other hand, many of them seem to have emanated from market-hunters and game dealers who are becoming very restive under the pressure of restricted opportunities for killing and selling the fast-disappearing game birds and animals of the country.

Our great benefactor, Mr. Willcox,

"built far better than he knew" when his love for wild life led him to leave to this Association a substantial legacy. If the National Association had not been placed in its present strong position through this benefaction, it would not have been able to carry on the enormous amount of legislative work that it has done during the present legislative season. Heretofore, it was only after the most careful consideration and under the most urgent stress of circumstances that money could be appropriated for legislative work, but this year we have had able and energetic representatives doing missionary work at a number of capitals.

The detailed story of legislative work which follows will show to the members of the Association and the readers of BIRD-LORE how important this branch of our work is.

Congress and the Biological Survey

While the story of how the House Committee on Agriculture attempted to end the existence of this valuable and important Bureau is familiar to many of the members of the Association, because they took an active and prominent part in continuing the Survey, yet to others this episode will be entirely new; further, it is well to place such matters on permanent record.

When the agricultural appropriation bill was reported in Congress by the committee in charge, it was discovered that no appropriation whatever had been made for the Bureau of Biological Survey. This meant that this important and necessary Bureau would be legislated out of existence, which would have been such a serious handicap and loss to the work of the National Association that it would have taken years to have overcome the setback. There was only one

thing to do, and that was for the National Association and the State Audubon Societies and the real sportsmen of the country to rally to the work of saving the Survey.

The first week after the matter was discovered was a busy time at the Association headquarters. The mails were entirely too slow, and whole letters were sent by wire to all parts of the country, asking for help in this emergency. Our lecturers and organizers were taken from their legitimate work and were detailed to help save the Biological Survey. The importance of this Survey to the Association can hardly be realized, unless one is actively connected with the work at headquarters. To the Biological Survey we turn for all data regarding the food habits of birds and their relations to agriculture that are used, and in addition, whenever the Association is advocating a legislative bill relating to game or non-game birds, the Bureau of Biological Survey is appealed to for an expert to appear at hearings. To the Bureau also we turn for publications, relative to birds and game, for distribution to help in the educational campaign the Association is always carrying on.

Who instigated the outrageous attack on the Bureau of Biological Survey is hard to discover, but when we recall the work done by the members of the House Agricultural Committee in 1906, in the matter of the meat-packing bill, it suggests the thought that the same interests, through the same channels, sought to cripple the work of game protection and to remove a factor that is doing so much to stop the sale and cold storage of game.

The Senate of the United States insisted that the Survey be continued, and forced the House into a compliance with its wishes; thus reflecting the wishes of every person in the United States interested in the preservation of its wild life.

The Bureau of Biological Survey was continued with the same meager appropriation that it had last year. This appropriation is so small that it does not permit the Bureau to carry on its valuable work with a force of scientists that it should be able to employ.

The National Association and the real sportsmen of the country are struggling at the present time with the subject of the preservation of the water game-birds of the country, and the Survey is unable to give us any data as yet regarding the food habits of this class of birds, simply because they have never yet been in a position to make these important investigations. It is extremely desirable and vitally important that the food of the shoal water-ducks and the shore-birds of the country should be determined at once; there is little doubt but that it will be discovered that these two classes of birds destroy enormous numbers of noxious insects whose larval stages are passed in water, but the proofs are needed.

MAINE.—Our representative in Maine, Mr. Arthur H. Norton, some time since sent us a copy of a petition that had been sent to the legislature of his state by eighty-three persons, residents in the township of Lubec, and another petition from nineteen persons in the township of Trescott, both of which towns are in Washington county, in the extreme eastern part of the state. The petition prayed for an amendment to Section 8 of Chapter 32 of the Revised Statutes by adding after the word "caught" in the fourth line the words "but this shall not apply to the shooting of Gulls by the owners of land or those having lawful possession thereof in the towns of Lubec and Trescott and Whiting in Washington county, while said Gulls are in the act of taking or menacing to take fish exposed for drying purposes or fish refuse or pumice spread upon said land for manure or fertilizer."

This Association and its predecessor, the Thayer Fund, spent several thousands of dollars in protecting the Gulls of Maine. There is no part of the United States at the present time where Gulls are not considered as non-game birds of beneficial character and are not protected by the model law.

There was but one thing to do, which was to send an ornithologist to make an investigation of the damage claimed to have been done by the Gulls and also to investigate the character of the persons who petitioned. The Honorable James Carroll Mead was

selected; he was the member of the Assembly who introduced and successfully carried to adoption the model law in his state in 1902. Mr. Mead's report is an interesting one, and shows how little foundation there was for the petition. As a matter of record, the report is given in full:

"Of the eighty-three names on the Lubec and Trescott petition, I find but nineteen are in any degree farmers. One man is dead, four unknown, and the balance are business men, mechanics, boatmen, laborers, etc. I have personally interviewed fourteen of the farmers, as well as several farmers who were not petitioners, and the results are almost confusing. I find no one making complaints against the Gulls except for the practice of feeding on the fish cuttings, or 'Scoots,' when spread on the land, and they claim to be damaged annually from 10 per cent to 75 per cent of the cost of the spread fish. Several men have assured me that it sometimes happens that while a man is at the factory for a load, the Gulls will devour a load already spread. The worst damage they claim is done after the weather grows cool in the fall; early in the season (a few men say until the middle of September in ordinary years) the 'Scoots' spread decay rapidly and the damage to them by Gulls is not worthy of consideration. Those pushing the bill strongest insist that June and July are the only months that they are free from the depredations. Some admit that December, or the fall of snow, ends all trouble, while others just as strongly insist that the danger on exposed, hilly farms, is equally great all winter, inasmuch as the late-spread fish, especially those kept some time in pickle, remain intact all winter, unless eaten by Gulls. For potatoes, grain, etc., the 'Scoots' are plowed in and the injury done is not worthy of consideration. It is only when spread as a top-dressing for grass land that the Gulls are attracted. The farmers commence haying in July, but I judge late in the month; right after this, and until winter, they do their fertilizing. The 'Scoots' in July are often given away by the packers in order to get rid of them, but later sell for from 75 cents to \$1.50 per load of ten or fifteen barrels' capacity, and are

usually spread at the rate of two or three loads per acre. I found two farmers who said they protected their fields with dogs. Another man has a piece of boiler iron near his house on which his children pound with a hammer and so frighten away the birds for an hour at a time. Another man says he can frighten them from his fields by pounding his barn with a board, but he added that 'pounding a barn with a board wouldn't earn a living in Lubec.' One man, Walter Myers, thought the Gulls a damage to him as a farmer, but a help to him as a fisherman, inasmuch as they kept his weir and the shore free from dead fish."

From the above report, it will be seen that the greater part of the damage claimed is in the late fall and winter months, at which time there certainly can be very few Gulls left in the state of Maine, as the great body of them have migrated further south.

A copy of this petition was sent to our warden, Captain Fred. E. Small, in charge of Old Man Island, Me., which is not very far from Lubec, asking his opinion of the merits of the complaint, and he replied as follows:

"I have heard some few complaints made by farmers against Herring Gulls eating the herring off their fields, but most of them make an image of a man and put in the field, which keeps the Gulls away. In regard to their eating codfish or herring left on boards to dry, there is no truth in such reports. This is called the principal fishing locality in Maine, and I have been in the business myself and know what I am talking about; my opinion in regard to these reports is that the petitioners are planning to make a business of killing Gulls for market."

Mr. Norton and Mr. Mead appeared at the legislative hearing on the petition and submitted all the facts gathered, and made an appeal to the committee not to report the amendment favorably. This appeal was successful, and the Fish and Game Committee reported adversely.

This Association does not take the stand, nor has it ever advocated the protection of birds when it is conclusively proven that they are doing more damage than good; at

the same time, the Executive of the Association never has, nor will it ever consent to any amendment of a wise law on a complaint, until the reasons back of the same and all of the facts have been thoroughly investigated. We have never yet found a case where such a petition was not founded upon prejudice or ignorance. It is only another instance showing the value of and necessity for thoroughly organized work, such as is being carried on by the National Association.

There is a petition before the legislature of Maine to make the open season on Ducks in the county of Lincoln extended to April 1. This is being combated, as there are two reasons why it should not be adopted; first, because it is the trend of public opinion at the present time among the best class of citizens to prohibit all spring shooting; and second, because it is unwise in a state of the size of Maine, where the conditions are practically the same in every part of the territory, to have different open seasons. The game law should be general and apply to the entire state.

A petition is also before the legislature to make a close season of five years on the Wood Duck and the Buffle-head Duck, commonly called "Dipper." The reason given in the petition is an exceedingly wise one.

"We urge the protection of the Wood Duck and Buffle-head, because they are at present so exceedingly rare as to afford practically no sport or food supply, and we believe, unless rigid protection is afforded them, it will be only a short time before both varieties are absolutely extinct." Such an intelligent appreciation of present conditions deserves the highest commendation and approval.

Another petition: "No person shall at any time, hunt, trap, catch, kill, destroy or have in possession any Moose, Deer, Caribou or any game or fur-bearing animals of any description, within a radius of ten miles from the highest point of Mount Katahdin, known as the south monument, believing that the best interests of the state require this to be done."

The above is an exceedingly meritorious

measure, and, if adopted by the legislature, will establish a game refuge in one of the most beautiful and interesting parts of Maine.

NEW HAMPSHIRE.—A bill to amend the Fish and Game law of this state was introduced and has been passed. In some respects the bill makes important improvements; for instance, it makes the close season on the shore-birds and Ducks from January 31, which practically stops spring shooting, as none or but very few of these birds are found in the state during the month of January.

A second bill, making a five years close season on the Wood Duck, Killdeer Plover and Bartramian Sandpiper, commonly known as the "Upland Plover," was introduced and has been adopted. This is the first state to adopt the recommendation made by the American Ornithologists' Union at its last annual meeting.

MASSACHUSETTS.—Out of the mass of bill that were presented to the legislature for and against bird and game protection, the following important measures are of interest to this Association:

An act for the protection of Loons and Eagles; this was adopted.

An act to protect the Herring and Great Black-back Gulls; this was adopted. By the passage of this act protection is now given to all the Gulls in every part of the United States. The privilege to kill these two species of Gulls in Massachusetts was the only gap in a perfect series of laws in the entire country.

This is one of the results of the work of the "Thayer Fund" and the National Association during the last seven years. When the plume-hunters commenced their onslaught against the larger Gulls in 1900, it was found that in many states there were no laws protecting these birds.

Two bills regarding spring wild-fowl shooting were introduced, one making the close season on certain species of wild fowl commence March 1, and another January 1.

Neither of these bills received favorable consideration. This is unfortunate, because

it is absolutely necessary that the spring shooting of wild fowl should cease in North America. There is need for educational work in this connection in Massachusetts; but with the love of birds and the intelligence of the people of that state, there is practically no doubt that, when the matter is properly brought to the attention of the public, laws shortening the open season for wild fowl will be adopted by a future legislature.

A bill to make an open season on the Sabbath Day was very properly defeated. Without considering the question of respect for the Sabbath Day, it is always well to make a close season of at least one day in the seven, even during the season when shooting is lawful.

CONNECTICUT.—In this state, bills have been introduced to make the close season for Ducks and shore-birds commence January 1. A great deal of educational work is being done, and it is hoped that the bills will be considered favorably, although there is considerable opposition developing from the shore towns of the state, because the market hunters do not desire their special privileges curtailed. It is a fact that the only opposition that is ever found in any part of the country to the passage of bills stopping spring shooting, comes from the restricted class of persons who shoot for market or who sell game. The great majority of the people of every state advocate laws that conserve the wild life of the country for future generations; all intelligent people hope to prevent conditions that will lead to another story like that of the Wild Pigeon and the bison.

NEW YORK.—In the president's last annual report, he called the attention of the citizens of this state to the very wicked provision in the game laws, which permits the sale of wild fowl sixty days after the close season commences. This provision renders the January 1 wild-fowl law nugatory and practically of no effect. There is a further provision in the New York law which permits the placing in bond of surplus game which is on hand at the end

of the close or sale season, to be held until the next open season.

Bills to remedy this marked defect in the game law of this state were introduced; that is, for the purpose of stopping the sale of wild fowl after the 10th day of January; in other words, giving the dealers ten days in which to get rid of their surplus stock and also to stop the cold storage of any kind of birds or game.

A hearing was held on both of these bills on the 19th of February before the Assembly Fish and Game Committee. The Audubon interests were represented by your president; two other Game Protective Associations were ably represented, and the only opposition to the bill came from the Poultry and Game Dealers' Association of New York, which was represented by a paid attorney.

It was thought that those in favor of the two bills had proved conclusively to the Assembly Fish and Game Committee that these bills were meritorious and necessary, and that they should be favorably reported. The only claim that the attorney of the Game Dealers' Association made was that the bills interfered with vested rights and the interests of his clients who were legitimate dealers in game. Further, he claimed that they did not sell New York State Ducks, but received all of their supplies from other states. In rebuttal, it was shown that many of the states prevented the export of wild fowl and other game and therefore the New York dealers must necessarily be selling goods illegally obtained.

For some reason which it is hard to learn or understand, these bills have not been reported out of the committee, although the chairman has been personally urged to give them favorable consideration and let the fight for the bills be made on the floor of the House: it is believed that the sentiment of the state is so strong for the passage of these bills that the Assembly will pass them. At this writing an appeal is being sent broadcast throughout the state, asking the citizens to insist that the above bills should be reported by the committee.

NEW JERSEY.—An anti-spring shooting bill for wild fowl and shore-birds have been

introduced, together with a Hunter's License Bill. A joint hearing before the Game Committees of both Houses was held, and it is an interesting fact that not a voice was heard at the hearing in opposition to them. Both of these bills have passed the Assembly and are now before the Senate for action. It is with great pleasure that we call the attention of the citizens of New Jersey to the speeches made in behalf of the anti-spring shooting bill, and also for the most advanced bird and game protection by Assemblymen Crowther, of Middlesex; Fake, of Bergen, and Hahn, of Essex.

SOUTH CAROLINA.—A bill incorporating the Audubon Society of South Carolina was passed by the legislature. This law is exactly like the one in North Carolina, and gives the Audubon Society of the state all the powers and duties of a game commission.

Secretary Pearson will spend a large part of April in organizing and starting the new organization, so that the same efficient game and bird protection may be had in South Carolina that has obtained in North Carolina since the Audubon Society of that state was vested with its present powers.

How necessary it is to have an organization to enforce the bird and game laws of South Carolina will be shown by a quotation from a letter recently received from Sumter:

"About February 21 the first Robins made their appearance in this vicinity, and almost immediately a wholesale slaughter began. Boys just large enough to hold a gun (many with slingshots), men and *even women*, all joined in the 'sport.' You can hardly look out on the streets that you do not see some one passing with a string of a dozen or more birds. They seem to vie with each other to see who can kill the most. Only last evening, the gentleman with whose family we board came in after only a few hours' gunning with a bag of Robins. You think, when every one, almost, that you meet is bent upon the self-same errand, that it is a wonder there are any Robins left to continue the journey northward.

"There is a splendidly organized Civic League here, and I have thought that pos-

sibly they might take the matter up, if it were placed before them in the proper light. I spoke to one of the members the other day, and she promised to mention the matter at the next meeting. Can you not send each of them one of your leaflets on the subject?

"This is the heart of the cotton-growing industry of South Carolina, and I believe that if the subject were placed in the hands of a few of the leading men, something might come from it."

ALABAMA.—The bill spoken of in the January number of BIRD-LORE passed both branches of the legislature and was signed by the Governor, and it is now a law in this state. It is without doubt the most advanced and drastic game law now in force in the country. By appointment of the Governor, the Honorable John H. Wallace, Jr., has been made the Game Commissioner of the state, and this means that the new law will be enforced, for he is a most ardent protector and has a very high conception of the value of birds to agriculture, and also that they are one of the assets of a state and should be conserved in every possible way.

PENNSYLVANIA.—A very radical retrograde step has been taken in this state, and it is understood that the legislation was approved by the Fish and Game Commission. A bill was introduced and has been passed by both branches of the legislature to repeal the anti-spring-shooting law. It has been stated that this will not result in the killing of more than ten thousand Ducks in the spring, but when we consider that that means that there will be at least a shortage of sixty thousand Ducks in the following fall, the offspring of those killed in the spring, there is no question whatever regarding the great wrong that has been done the wild fowl.

WEST VIRGINIA.—This state has just adopted by a practically unanimous vote of both branches of the legislature the model law. Senator Hazlett introduced the bill and successfully accomplished its passage. The bird-lovers of the state are under great obligations to him for his public spirit and his high appreciation of good civics.



1. HERMIT THRUSH.

2. GRAY-CHEEKED THRUSH.

3. OLIVE-BACKED THRUSH.

Bird = Lore

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A Sketch of the Thrushes of North America

By JONATHAN DWIGHT, Jr., M. D.

DAINTY of plumage and musical of voice, the Thrushes of North America are perhaps the most delightful members of the great bird population that spreads northward over the continent in spring, to retreat far southward again in autumn before the snow and ice of a northern winter. Five species inhabit our country, all of them abundant, but so silently do they accomplish their long migratory journeys, slipping along in undergrowth and hedge-rows by day and winging their way far up in the quiet sky by night, that, except for flashes of wings in the woods or mellow calls borne on the night air, their presence may easily be overlooked until they have settled for the brief summer in their breeding haunts. Then truly it may be said that they "waste their sweetness on the desert air," for two of them, the Hermit and the Olive-backed, vie in breaking the solemn spell of silence that broods over the wilderness of the great north woods; one, the Gray-cheeked, carries his music to the very shores of the Arctic Ocean, and only two,—Wilson's and the Wood Thrush,—remain to pass the summer in the more temperate and populated portions of the country, their northern range scarcely reaching the northern borders of the United States.

In plumage the Thrushes are brown of different shades, the breast and under parts white with dusky spotting and often suffused with buffs and grays. They molt but once in the year, but, as they dwell mostly in shaded seclusion, they do not fade as much as might be expected in a twelvemonth. The field-student will do well to distinguish even the species, for the geographical races or subspecies are not readily recognizable even with specimens in hand for comparison and measurement. It is to be regretted that so much effort has been expended in forcing names upon very slight differences, because, in the confusion which arises, the very purpose for which a name is given, convenience, is defeated. Here, I merely ask my readers to remember that variation is of three kinds,—*individual*, when one bird differs from his own relatives; *seasonal*, when plumage is affected by molt and by wear; and *geographical*, when environment imposes characters

that are inherited. The geographical are the only variations that are nameable.

My out-of-door acquaintance with the Thrushes is of years' standing, and I have enjoyed their company in many parts of the United States and Canada. Furthermore, I have had access to large series of skins, and I now



BREEDING RANGES OF THE OLIVE-BACKED THRUSHES (*Hylocichla ustulata*)

1. *H. u. ustulata*. 2. *H. u. swainsoni*. 3. *H. u. almae*

hope, by outlining their distribution and prominent characteristics of plumage and habit, to impart, even to the casual reader, some idea of the meaning of geographical distribution and the significance of subspecies.

Let us first turn to the Wood Thrush (*Hylocichla mustelina*), one of the species most familiar to every bird-student of eastern North America. It is known afield by its large size, tawny back and white breast heavily spotted with black, and its breeding range is the smallest of any of the five species,

extending only throughout the dry, deciduous woodlands of the eastern United States and the Mississippi valley, and not crossing the Canadian boundary except in Ontario. In winter it retreats to Cuba and Central America, departing south, like most of the Thrushes, in September. It readily adapts itself to modern conditions and fearlessly nests in the shade



BREEDING RANGES OF GRAY-CHEEKED THRUSHES (*Hylocichla alictæ*)

1. *H. a. alictæ*. 2. *H. a. bicknelli*

trees of parks and lawns, although shy as its brethren in its native forest. Its rich song, suggestive of drowsiness and midsummer, is hardly surpassed even by that of the Hermit Thrush. So much has been written about this species that I need say but little. There are no subspecies recognized.

The Wilson's Thrush or Veery (*Hylocichla fuscescens*) is also a familiar acquaintance, much smaller than the preceding species, less yellowish brown and with a buffy breast that is very faintly spotted. He pushes

farther north, reaching Newfoundland in the East and British Columbia in the West, where the coast range of mountains seems to bar his way to the Pacific coast. A line drawn from Philadelphia to Denver will roughly indicate the southern limit of his breeding range, and in winter he is found in Cuba, Central America and sometimes the countries farther south. The Veery, so called from his song, which is a somewhat monotonous although sweet repetition of metallic whistled notes, dwells chiefly in marshy thickets and makes his nest in tussocks of grass.

The birds of the Rocky Mountains and adjacent regions have been separated as a subspecies under the name *salicicola*, or Willow Thrush, characterized by larger size and darker colors, characters that are not well borne out by the few specimens I have examined. Another dark race, *fuliginosa*, from Newfoundland, has also been described but it was not accepted by the A. O. U. Committee.

In *Hylocichla ustulata* we have a group of Thrushes called Russet-backed (*ustulata*) in the West and Olive-backed (*swainsoni*) in the East, the unfortunate discrepancy arising because the western birds were named first, in 1840, and the eastern not until several years later, both being then considered full species. As a matter of fact, Nuttall called *ustulata* the 'Western Thrush' (Russet-backed being a later invention), and a simple solution of the dilemma will be to call the two races, which they prove to be, one the Western and the other the Eastern Olive-backed Thrush, with *almæ* (Alma's Olive-backed Thrush) a connecting link between them. The eastern form, *swainsoni*, lacks the russet tinge of *ustulata* which is quite pronounced in the tail, while *almæ* is a greenish, gray-backed bird very close to *swainsoni*. As for *ædica*, I quite agree with Mr. Grinnell that it is merely *ustulata*, faded in the California sun faster than are its fellows to the north.

The breeding range of the Olive-backed Thrush is coextensive with the great belt of coniferous forest that stretches across Canada from ocean to ocean, encroaching also on the northern parts of New England, New York, Michigan, Wisconsin and Minnesota and dipping southward along the mountains of the Appalachian, Rocky and Sierra systems. The tree limit of the continent marks the northern limit of this belt, the greater part of which is still a trackless wilderness, which, for a brief season only, is filled with birds and flowers. Here, however, in this northland, where billows of somber green spruces and firs stretch away on every hand, broken only by innumerable lakes and streams and outcroppings of cold gray rock, the cheerful songs of the Olive-backs may be heard to best advantage, often mingling with those of the Hermits that occupy the same region. The quiet of evening is the favorite hour for their most extended vocal efforts, although they often sing during the day, while the Hermits are apt to be silent save in the early morning hours and toward dusk. Perched high in a tree, whence they may spy any one approaching and dive into the nearest

underbrush, they pour forth successive bursts of rippling melody. While the song lacks the variety, the deliberation and the "spirituality" of that of the Hermit Thrush, it flows with an irresistible swing that fairly eclipses the Hermit's best efforts. In the dry air of the Pacific coast their ringing tones seemed to me to be even clearer and sweeter than in the East.



BREEDING RANGES OF THE HERMIT THRUSHES (*Hyalocichla guttata*)

1. *H. g. guttata*. 2. *H. g. pallasi*. 3. *H. g. auduboni*. 4. *H. g. nana*

They are much shyer and more restless than are the Hermits, although they carelessly place their nests five or six feet from the ground, commonly in small spruces, where they are very conspicuous. The sitting bird crouches motionless in the nest if surprised, but is generally able to slip away unobserved and flit about silently with its mate in the adjacent bushes, sometimes uttering a liquid 'puk' of alarm.

Along the Maine coast and along nearly the whole coast of California,

these birds breed at sea-level, and they have clung to their favorite haunts, the spruce forest, wherever it has been spared by the lumberman and the farmer. So it is that they occur along the higher Alleghanies as far south as Pennsylvania, in the southern Rocky Mountains at about 8,000 feet altitude and in the Sierras and ranges of Nevada at varying altitudes. When the vast breeding range of the birds is considered, it is really remarkable that they vary so little in plumage and practically not at all in size. For the winter they betake themselves to Cuba and Costa Rica, sometimes reaching Ecuador or Peru.

In the *Hylocichla guttata* group of Hermit Thrushes there is a beautiful tangle of names and races, chiefly the result of mistaken zeal on the part of expert ornithologists. Suffice it to say, that Gmelin's old name *aonalaschka* has been thrown over because his description is vague and because no *Hylocichla* has ever been or is likely to be taken on Unalaska Island. The next available name is *guttata*.

The range of the Hermit Thrush coincides very closely with that of the Olive-back, although the species is slightly more southern in distribution except in winter, when it does not entirely desert the lower border of the United States. It dwells in the same coniferous forests, with perhaps a preference for the deciduous bits scattered through it, and its song is often blended with that of the other species. It is more sluggish in its movements than the Olive-back, and even its song moves slowly. Nevertheless, the Hermit Thrush bears the palm as the most gifted songster of North America, and his sweet, measured notes poured forth in many stanzas of different keys have been the theme of poetic writers.

The Hermit is less tidy in appearance than the Olive-back and, perhaps because of his more terrestrial habits, becomes more frayed and worn in plumage. This may be one reason why so many subspecies have been described, and varying size is another, but in my opinion, when we have accepted four races, we have about reached the limits of recognizable variation. We should have, then, *pallasi*, the eastern race; *nana*, the smaller, deeper colored Pacific coast race, and *guttata*, the gray Alaska-Rocky Mountain connecting link just as in the Olive-backed Thrush; then we should also have *auduboni*, a large race at the southern extremity of the Rockies, which has no counterpart in the Olive-backs, because they show no variation in size. As for *slevini* of California, if *ædica* is a summer fading, then *slevini* falls into the same category; *sequoiensis* of the Sierras fills an inappreciable gap between *guttata* and *auduboni*, and *verecunda* of Queen Charlotte Islands is, of course, merely the mainland bird *nana*. These conclusions may not meet with general favor, as they are not in complete accord with commonly accepted ideas, although I find them in accord with the facts derived from personal examination of a large number of specimens. I am satisfied that the recognition of more races will simply

mean that all winter specimens will be named by guesswork. Light ones and dark ones, large ones and small ones, may be sorted out into series to which names may be applied, but no one can feel sure by this process of matching that some of the birds in different rows did not come originally from the same nest !

The Gray-cheeked Thrush (*Hylocichla alicia*) is a species that boldly seeks the most inhospitable northern confines of the continent, building its nest beyond the tree limit, in the stunted birches, willows and alders that fringe the Arctic Ocean. It ranges from Labrador to Alaska, extending over Bering Strait to the bleak shores of northeastern Siberia,—truly a dreary summer home, but in winter it retires to Costa Rica and Panama. It closely resembles the Olive-back in plumage and, although larger and greener, may easily be mistaken for the latter species. Its habits are similar, and it, too, lays blue eggs spotted with brown, the eggs of the other three species being plain blue. Its song is said to resemble that of the Hermit, but, as it hastens quietly northward in the spring, few of us are destined to enjoy its full melody.

A small dark race, *bicknelli*, Bicknell's Gray-cheeked Thrush, has been described from the Catskill Mountains of New York, and similar birds have been found on the Adirondacks and higher points of New England, as well as on the cold islands off the Nova Scotia coast. The race is but slightly differentiated and may perhaps be considered as a survival, dating from times when glaciation was nearer home.

In conclusion, I would say that many definite records of capture of specimens of the different races are open to doubt, and, while I have not been able to investigate all of them, I have endeavored to weigh them properly and the results are roughly indicated on the accompanying maps, which show approximately the breeding ranges of the different species and races.



The Rose-breasted Grosbeak

By B. S. BOWDISH, Demarest, N. J.

With photographs from nature by the author

WHILE a few writers have tended to exaggerate the beauties of color and sweetness of song, and the value of food habits of this bird, more have slighted it. In the matter of brilliant color few of the tropical birds surpass the Rose-breast, while to the writer, at least, his song has a charm that is rivaled only by the melody of a very few of our feathered vocalists. While, I believe, no systematic study of his food habits has been made by the Department of Agriculture, yet the casual observations of bird students have shown that the Grosbeak has a peculiarly valuable habit, namely, the including of the potato beetle in his bill of fare,—a taste apparently shared by few if any other birds.

On one point the Grosbeak's chroniclers have many of them been remiss. I refer to the share that the male takes in the labor of incubation. In some instances writers ignore this entirely, while I have seen the extreme statement that the male performed this entire work. Neither view is in accord with my experience. In most cases I have observed the female on the nest, while the male proved to be the more fearless and devoted in attending to the household duties in the presence of supposed danger.



NEST AND EGGS OF ROSE-BREASTED GROSBK

This, of course, is as it should be, but is so contrary to the habits of most birds as to excite comment.

On May 24, 1906, I located two unfinished nests, which I ascribed to Grosbeaks. One of these was never finished, but the other, completed



MALE ROSE-BREADED GROSBK APPROACHING NEST

later, proved to be the property of a pair of Rose-breasts. The following day I found another nest in a dense thicket some three miles from my home. It was situated about eight feet from the ground in an elder bush, and contained two eggs. The male was the only bird about the nest, but was not seen on it. I made a photograph of nest and eggs, but did not again visit the spot, so know nothing of its future history. Within fifteen feet of this nest was a newly finished one of a Wood Thrush and a Catbird's home containing three eggs, while, a little further away, there was another Wood Thrush's nest with three eggs and a second Catbird's with three eggs, also, so the Grosbeaks did not lack for company.

On May 26, a female Grosbeak was sitting on the finished nest found building on the 24th, while another nest was discovered within twenty rods of this one, with the female on it. This latter nest was about nine feet from the ground, in a choke-cherry bush, in a damp thicket, and contained two eggs. The male was nearby, while, in the case of the former nest, no male was seen. The next day I made two visits to these nests in hope of obtaining photographs, but was prevented by rain. On the first

occasion the female was on the nest in each case, while, at the second visit the male was on nest number three.

On the afternoon of the 27th, I set up the camera on a tripod the legs of which had been spliced with extra pieces to elevate it, and, with a bicycle pump and one hundred feet of tubing, awaited an opportunity to make an exposure. Late in the afternoon, when the light was becoming very unsatisfactory, the male went on the nest. I made an exposure, but development proved that the bird had moved and spoiled the picture. On this date I found the other nest was empty and abandoned, I suppose robbed.



MALE ROSE-BREASTED GROSBEEK ON NEST

This latter nest was built in a little elm, about seven feet from the ground, and in plain sight of a public road.

On the 31st, nest number three contained four eggs; the female was on when I arrived, but promptly got off. I set up my apparatus, and at the end of the tube I wrapped myself up in the photographic tent and lay down among the bushes, where I could take an occasional peep at proceedings, through the opening at the top of the tent, closing this during the interim to exclude the too friendly attentions of the myriad of mosquitos. It took some time to establish the confidence of the male Grosbeak (the female retired altogether), but at last he settled on the nest and, giving him time to get comfortably ensconced, I made a half-minute exposure. The second exposure was obtained under even greater difficulties, but eventually I gave

the bird ten seconds as he stood beside the nest, and then went home, fully prepared to find that my two attempts were failures. I was agreeably surprised when they proved to be fairly successful.

On June 2, I again tried to get photographs of both birds, without success, so made pictures of nest and eggs and retired. On the following day the nest was gone, another of the frequent depredations about this spot.

June 9, about ten rods from the site of this nest I noted a female Grosbeak sitting on a new nest, and presume it was the bird from the rifled nest.

Minot, in 'Land Birds and Game Birds of New England,' paying high tribute to the beauty of dress and elegance of song of the male Grosbeak, says "he therefore absents himself from the immediate neighborhood of his nest except when obliged to approach it, or when relieving his mate from the fatigue of incubation, as he occasionally does." In contrast to his observation, I have with one exception found the male Grosbeak always in the close vicinity of his home. Moreover, as seems often to be the case, conspicuousness by reason of brilliant coloring is more apparent than actual. As the photograph shows, when the male Grosbeak settles in his nest the rosy tints are concealed, and the apparently striking blacks and whites blend nicely into the blacks and whites of the foliage perspective.

Off of the nest he is no more conspicuous than the Cuban Trogon, and any one who has been in the forests where the latter birds abounded can testify that, despite brilliant color, the birds are by no means readily located.

The song of the Grosbeak resembles in a great measure the songs of the Robin and the Scarlet Tanager, and I heard one performer that I supposed was a Baltimore Oriole until I saw the bird. There is a less melancholy note to the Rose-breast's song than the Robin's possesses, while it has not a certain harshness that detracts from the quality of the Tanager's performance, and to me it is greatly superior to both.

As a final note I may add that on June 24, 1906, I located an empty nest in the top of a locust in a grove of such trees, near my home. On July 7, I found the female Grosbeak on this nest which, at that time, contained eggs. As this is a late date for Grosbeak to be commencing housekeeping cares, it seems probable that it was a second or third attempt on the part of birds previously disturbed.

Some Bird Acquaintances

NOTES FROM AN INVALID'S SKETCH-BOOK

By EMMA E. DREW*

FIRST come my friends, the Red-eyed Vireos and their family. The pretty mother built her little basket-nest in the apple tree just outside my window. Mr. Red-eyed Vireo did not help his wife in her work, but was ever near at hand to cheer her with his song. It was wonderful to see how skilfully this tiny creature wove the bits of material into a charming little home. Soon there were four pretty eggs in the nest, and in due time three tiny, squirming, naked little birds, and one unhatched egg, which Mrs. Vireo calmly poked out of the nest.

While the mother bird was on the nest I spent a great deal of time by that window, and after a few days she did not mind me in the least. Once I almost touched her; and she never moved.

When the three little Vireos began learning to fly, there were exciting times at 'Shadyside.' Often Mrs. Red-eye came to the veranda where I was reading and invited me to step round and rescue her children, once from Miss Day's good, toothless old pussy-cat, and several times from a mass of tall, wet grass. Soon I concluded to bring the youngsters to the vine on the porch, and after that I had an easier time. Then, too, I could watch proceedings from my comfortable steamer chair. One day it occurred to me to try my hand at feeding these young Vireos. So I got a few meal worms and offered one to a youngster. My, how quickly he opened his mouth! Down went the poor worm into what looked to me like a deep well, and his parents had been feeding him almost every moment since dawn! While I stood feeding them, the parent birds came into the vine with food in their bills. Did they fly off in alarm? Not they. Instead, they waited until I had dropped my last worm into the mouth of a nestling, and then proceeded to take their turn as undisturbed as you please. You may be sure I was very happy to be taken into partnership by these neighbors.

* In a letter to the Editor of *BIRD-LORE* Miss Drew writes: "I send a few notes on birds, not because I feel these notes to be of value, but because some of your readers must, like myself, live an out-of-door life for several years, to regain, in a measure, health and strength, and who, because of inability to walk or drive very much, feel that even the study of birds is not for them.

"For nearly seven years I have been forced to live in the woods in the Adirondacks. For four years I have spent most of the spring and fall months in the little country village of Jay, almost in the "heart of the ancient wood." Most of my days have been spent in a steamer chair on the wide piazza, doing nothing. I have not been from the porch at any time, except during the last year, when I have been able to take some long drives through wonderful woodsy places, and yet I have a list of one hundred and forty birds seen in this way, and have made friends with quite a number. My idea is to show some discouraged invalid that there is real pleasure and work in watching the birds, even from a steamer chair on a piazza."

I have a very special friend in a White-breasted Nuthatch, who has been about the place constantly for about three years, and who knows me anywhere. I call him 'Chum.' This bird friend comes into my room for nuts, placed on the wide window-ledge for his benefit. One day last spring he came before the nuts were quite ready. Not finding what he wanted in the usual place, he gave a low *quank* of wonder and proceeded to look about. I sat near at hand and had just filled a plate with broken peanut meats, ready to distribute about on the window-ledge and on the trays which I have nailed to the pillars of the porch. Chum spied me and at once flew my way, alighting on the edge of the plate, where he slipped about at a great rate. Finally, getting his balance, he selected a bit of nut and flew off out of the window. When walking in the garden, Chum often drops down on me, and I try to remember his fondness for peanuts before I start out anywhere. Again, when writing at my table on the wide piazza, Chum seldom fails to join me, tramping calmly over my letter, if necessary, to reach his little dish of nuts. If I happen to be reposing in my steamer chair reading, Chum spies me there, and flies down on the toe of my boot and marches solemnly up my whole length to my hand, where he selects a bit of nut with due deliberation and great satisfaction. Sometimes he settles himself comfortably on my hand and eats his lunch there, hammering the nut meats between my fingers, and then biting off little pieces best suited to his taste. This little friend brought his wife and five little ones to a tree near the veranda, about the middle of June, but while he came freely, as usual, neither Mrs. Nuthatch nor any of her interesting family could be persuaded to come near me.

Every fall, beginning October 1, I tie pieces of suet to the near-by trees, and nail little wooden trays to the piazza posts. The trays are kept filled with cracked corn, nuts, hemp seed, sunflower seed and coarse oatmeal. Both the suet and the trays are well patronized always.

The fall of 1903 was unusually cold, and most of the time I was glad to wrap up in my rugs and watch the birds from a couch on the veranda, so, in addition to the usual trays, I placed a well-filled one on a little stand about a foot from my resting place. Soon I had plenty of company. All day, from 9 A. M. until nearly 5 P. M., my little comrades were busy at both lunch counters and suet. There were Chickadees, Nuthatches, Goldfinches, Downy and Hairy Woodpeckers and Tree Sparrows. Even a Blue Jay appeared once in a while. The tray near my couch was patronized almost entirely at first by the jolly, friendly, confiding little Chickadees. Often there were a dozen at a time eating peanuts from that tray. Each would take a piece of nut, fly to some near-by resting place and eat with a good appetite. One fellow flew over onto me and ate his nut, warming his toes on my rug at the same time. Another inquisitive little Chickadee flew onto my head, and began to peck at the button which adorns my cap.

Sometimes I would not get out very early with fresh nuts for the trays. Then some of these little friends would appear at my window and peck at the glass, as much as to say, "Where is our breakfast?" Soon these bird neighbors become so friendly that, when I opened my windows and held out my hands filled with nuts, down they would fly with a *chickadee-dee* for good-morning, and take the nuts from my fingers.

This spring I had the pleasure of finding a flock of ten red Crossbills. They were first observed April 30, in some apple trees near our cottage. They were very tame, and I was able to sit down within six feet of them and watch them. Three of the males were in full spring dress, and were beauties. Two more had a quantity of red in their plumage. When startled, they would fly a short distance away, uttering twittering notes as they flew. I watched them for more than an hour with my glass, and found they were extracting the seeds from some apples which had been left on the trees all winter. The next morning when I looked out, lo, there they were again to greet me! Reading in Mrs. Bailey's 'Birds of Village and Field' that these birds were very fond of salt pork, I tied bits of this meat to the limbs of the trees hoping to keep them after the apple seeds failed. This succeeded beyond my expectation, for morning and afternoon of nearly every day until June 8 that little flock came to the orchard. On that day they disappeared and were not seen again. While feeding, they gave a sort of whistling note. They seemed very happy and very much at home. At intervals one would stop feeding and sing a sweet little song, not powerful or very loud, but varied and exceedingly pleasing.

While watching the Crossbills one morning (May 4), a Ruby-crowned Kinglet flew into a near-by tree. At first he fed in silence, then began to flit from twig to twig in such a pretty, graceful fashion, and suddenly broke out into song. This was the first time I had ever heard the spring song of this tiny bird, and it was, truly, a red-letter day for me. The song is quite wonderful—or so it seemed to me—a prolonged and varied warble, mellow and flute-like, with such sweetness and purity of tone! The bird is so small, and the song so loud, and rich and full, that at first I looked about for a larger bird.

One morning, about the middle of June, a Robin, seemingly in great distress, came into the vine near my chair. When I started up, expecting to see a cat about, the bird flew to her nest at the other end of the veranda and then back to me. Placing a chair under the nest, I climbed up and looked into it. Half in and half out of that nest hung a young Robin! In some way a piece of string had become twisted about his neck. I hastened to get my scissors and cut him down, to the great joy of his mother, who kept close at hand while I released her child and placed him safely back in the nest. She seemed to know I was doing her a good turn. The young bird, after he got his breath again, appeared to have suffered no great harm.

This spring, besides keeping out the tray of food and the suet for my bird neighbors, I hung out several cocoanuts. First I made a hole in one side about the size of a quarter and then suspended the nuts by strong twine from the near-by trees. Soon Nuthatches, Chickadees and Woodpeckers patronized freely these little "houses full of meat" and furnished no end of fun besides. Often all I could see of a hungry Chickadee was the end of his tail. The Downy Woodpecker couldn't quite get inside, but he went as far as he could, and even the big Hairy tried his hand at the nut.

I would like to tell of other friends among the birds—of the pair of Song Sparrows who for two years have built their home in a white rose bush not far from the house, and who daily—yes, and many times a day—stroll up and down this wide piazza, talking in undertones of housekeeping cares and feeding on the hemp seed scattered about for them at the same time, never minding me in the least, and of the two pairs of Chipping Sparrows who never failed to build in the vine on the porch, or to bring their young to my window-sill and teach them to eat peanuts, and of how one poor bird was nearly choked to death because its mother jammed too large a piece down his throat one day. And, too, of the pair of Robins who also built in our vine very close to a Chippy's nest, and of how each time Mrs. Robin left her own pretty eggs for a little recreation she never failed to bring back some dainty for her neighbor's children; all of which attentions Mr. and Mrs. Chippy resented, even severely pecking the officious Robin, who seemed to like the unkind treatment, for she steadily and persistently fed those young Chippies. I would like to tell you all this and more, but there is not time. But let me add one word. Let me tell you that the friendship and the companionship of these little comrades has been not only a source of real pleasure and comfort during these few years of enforced exile from home and friends, but an education as well. Many a needed lesson in patience have they taught me. Many a lesson in affectionate consideration and helpfulness as well.



Some Edmonton, Alberta, Birds

By SIDNEY S. S. STANSELL

With photographs from nature by the author

IN visiting Alberta for the first time, I find there are many birds here that are not listed as breeding this far north by several hundred miles.

My first surprise was in seeing the Rose-breasted Grosbeak; my second when, early one morning, I heard a House Wren singing, for all the world, as it does in Illinois. My third surprise came when I heard the familiar call of the American Goldfinch, flying just as he did at home and singing his same old song when resting on a bush or tree.

Thus my list of birds has lengthened and, by searching the woods day after day, I became acquainted with more and more birds on each visit, locating a nest here and one there. I soon had a fair collection of photographs, a few only of which are shown here.

On June 25, I visited Rat Lake, a small body of water containing only a few acres, situated within a few minutes' walk of the city of Edmonton.

Here I expected to find Ducks nesting, but, on account of its proximity to the city, the small boys and hunters kept them away; and all the reward I received for my diligent search was a solitary Pied-billed Grebe's nest floating in the center of the lake, and this contained only one egg, so no photograph was taken.

After encircling the lake twice I noticed what at first seemed to be a bunch of dry grass, but, on looking closer, it proved to be an American Bittern hiding. I advanced toward the bird slowly and carefully until I was within fifty feet of it, and yet it stood perfectly still. I timed it, and it remained in



ROBIN FEEDING YOUNG

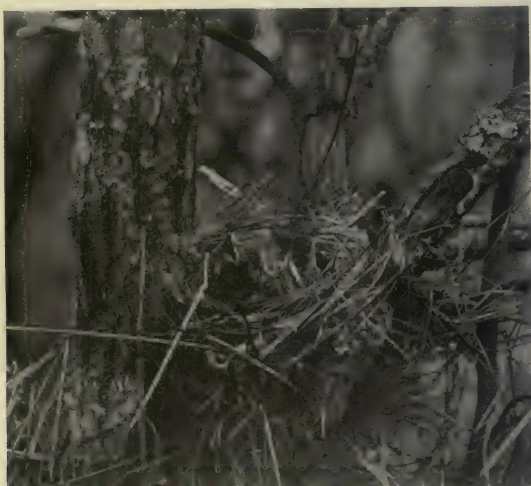


CANADA JAY
April 8, 1907

the same position for twenty minutes, then flew away to another lake near by.

On starting home I flushed a Wilson's Snipe, but failed to locate its nest. Several Killdeers were running along the shore, continually uttering their familiar cries and trying to lead me away from their nest of young, which I did not have time to locate.

The Northern Flicker is quite scarce here. I do not remember seeing more than two or three pairs during the season and did not locate a single nesting site. White-throated Sparrows and Slate-colored Juncos abound in



NEST AND YOUNG OF OLIVE-BACKED THRUSH

the low, wet places, even in the back yards in the city, and frequently are seen sitting on the telephone and electric light wire on the busiest streets.

The English Sparrow did not seem to be very abundant in the spring of 1906, and the following fall numerous flocks could be seen at most any time of day chattering in the trees or flying about over town.

The American Robins are more numerous here than I expected to find them. They nest along the Saskatchewan River and close to habitation; the greatest number of nests I located were in white poplar trees. The one in the illustration was on a steep hillside near the river. Even in this short summer two broods are reared. Several nests of the Olive-backed Thrush were found, all of them being about the same height above ground and constructed of the same material. In the nest containing the three young Thrushes, shown in the illustration, two Cowbird eggs were found.

The Migration of Thrushes

THIRD PAPER

Compiled by Professor W. W. Cooke, Chiefly from Data
in the Biological Survey

With drawings by LOUIS AGASSIZ FUERTES and BRUCE HORSFALL

GRAY-CHEEKED THRUSH

SPRING MIGRATION

PLACE	No. of years' records	Average date of spring arrival	Earliest date of spring arrival
Gainesville, Fla.			April 26, 1887
Raleigh, N. C.	3	May 12	May 4, 1894
Washington, D. C.	8	May 11	May 8, 1907
Englewood, N. J.	5	May 23	May 11, 1898
Shelter Island, N. Y.	4	May 20	May 17, 1901
Beverly, Mass.	5	May 23	May 20, 1902
New Orleans, La. (near)	4	April 22	March 27, 1897
St. Louis, Mo.	4	May 3	April 24, 1885
Central Iowa	7	May 9	April 28, 1906
Oberlin, Ohio	5	May 7	April 29, 1899
Chicago, Ill.	9	May 12	May 1, 1899
Lanesboro, Minn.	8	May 12	May 7, 1893
San Antonio, Texas			April 24, 1890
Onaga, Kansas	3	May 6	May 1, 1904
Aweme, Man.	4	May 14	May 11, 1906
Fort Keogh, Mont.			May 18, 1889
House River, Alberta			May 19, 1903
Fort Chippewyan, Alberta			May 22, 1901
Fort Anderson, Mack.			May 28, 1865
Kowak River, Alaska			May 24, 1899

PLACE	No. of years' record	Average date of last one seen	Latest date of last one seen
Raleigh, N. C.			May 17, 1893
Washington, D. C.	6	May 27	June 5
Englewood, N. J.	5	May 28	June 1, 1897
Beverly, Mass.	3	May 31	June 2, 1904
New Orleans, La.	4	May 5	May 10, 1903
St. Louis, Mo.	3	May 22	May 25, 1886
Chicago, Ill.	11	May 25	May 29, 1900
Lanesboro, Minn.	3	May 24	May 27, 1893
San Antonio, Texas	2	May 13	May 15, 1890
Onaga, Kans.	3	May 17	May 18, 1904

FALL MIGRATION

PLACE	No. of years' record	Average date of first one seen	Earliest date of first one seen
Chicago, Ill.	6	September 11	August 26, 1894
Beaver, Pa.	3	September 18	September 7, 1903
Washington, D. C.	5	September 28	September 15, 1897
Raleigh, N. C.	4	October 6	October 2, 1888

FALL MIGRATION, continued

PLACE	No. of years' record	Average date of last one seen	Latest date of last one seen
Kowak River, Alaska			August 25, 1898
Nome City, Alaska			September 8, 1899
Fort Simpson, Mack.			September 9, 1860
Athabaska Landing, Alberta			September 12, 1903
Aweme, Man.	5	September 9	September 30, 1903
Chicago, Ill.	3	October 2	October 6, 1894
Washington, D. C.	2	October 9	October 12, 1889

The most striking characteristic of the Gray-cheeked Thrush is its rapid migration, probably the most rapid of all North American birds. Scarcely five weeks are occupied in the journey from the Gulf of Mexico to Alaska, an average speed of a hundred miles a day and a probable speed during the latter part of the journey at least twice as great.

OLIVE-BACKED THRUSH

SPRING MIGRATION

PLACE	No. of years' record	Average date of spring arrival	Earliest date of spring arrival
<i>Atlantic Coast—</i>			
Raleigh, N. C.	8	May 4	April 22, 1892
Lynchburg, Va.	3	May 4	April 30, 1902
French Creek, W. Va.	3	April 29	April 27, 1893
Washington, D. C.	17	May 5	April 19, 1896
Beaver, Pa.	4	May 3	April 30, 1902
Germantown, Pa.	5	May 6	May 3, 1890
Providence, R. I.	5	May 12	May 11, 1902
Eastern Massachusetts	14	May 14	May 7, 1897
St. John, N. B.	10	May 21	May 8, 1887
Halifax, N. S.			May 18, 1896
<i>Mississippi Valley—</i>			
New Orleans, La.			April 2, 1895
Central Kentucky	5	April 24	April 14, 1906
St. Louis, Mo.	6	April 23	April 17, 1885
Oberlin, Ohio	8	April 29	April 22, 1902
Southwestern Ontario	5	May 6	May 3, 1885
Ottawa, Ont.	7	May 13	May 5, 1902
Southeastern Nebraska	4	May 4	April 28, 1900
Chicago, Ill.	11	May 2	April 23, 1897
Central Iowa	14	May 6	May 3, 1904
Lanesboro, Minn.	6	May 8	May 1, 1887
Minneapolis, Minn. (near)	7	May 8	May 3, 1905
Huachuca Mountains, Ariz.			May 2, 1902
Northern Colorado	4	May 8	May 6, 1906
Cheyenne, Wyo.	3	May 9	May 7, 1888
Great Falls, Mont.	3	May 15	May 13, 1892
Columbia Falls, Mont.	3	May 19	May 17, 1896
Athabaska Landing, Alberta (near)			May 17, 1903
Fort Simpson, Mack.			May 24, 1860
Southern California*	3	April 12	April 7, 1886
Central California	6	April 22	April 12, 1885
Southern British Columbia	4	May 10	May 7, 1889
Dawson, Yukon			May 24, 1899

*The Pacific coast records belong to the Russet-backed Thrush.

The Migration of Thrushes

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SPRING MIGRATION, continued

PLACE	No. of years' record	Average date of last one seen	Latest date of last one seen
Lomitas, Texas			May 22, 1880
Releigh, N. C.	6	May 13	May 17, 1893
Washington, D. C.	7	May 21	May 28
Beaver, Pa.	3	May 22	May 23, 1902
Beverly, Mass.	8	May 27	June 4, 1900
Central Kentucky	7	May 21	May 24, 1905
St. Louis, Mo.	4	May 25	May 29, 1882
Oberlin, Ohio	9	May 24	June 13, 1905
Chicago, Ill.	10	May 28	June 6, 1894

FALL MIGRATION

PLACE	No. of years' record	Average date of first one seen	Earliest date of first one seen
Chicago, Ill.	11	August 27	August 16, 1900
Central Kentucky	4	September 4	September 3, 1904
Southern Mississippi	3	September 19	September 12, 1897
Beaver, Pa.	6	September 15	September 13, 1902
Germantown, Pa.	5	September 17	September 11, 1886
Washington, D. C.	5	September 24	September 6, 1879
French Creek, W. Va.	3	September 15	September 8, 1890
Atlanta, Ga. (near)	6	September 19	September 14, 1901

PLACE	No. of years' record	Average date of last one seen	Latest date of last one seen
Columbia Falls, Mont.			September 23, 1895
Ottawa, Ont.	5	October 2	October 21, 1902
Oberlin, Ohio	3	October 2	October 24, 1896
Chicago, Ill.	5	October 3	October 24, 1897
Bay St. Louis, Miss.			October 31, 1901
St. John, N. B.	7	September 22	October 18, 1892
Germantown, Pa.	5	October 17	October 24, 1885
Atlanta, Ga. (near)	6	October 19	October 25, 1904
Raleigh, N. C.			November 19, 1885

HERMIT THRUSH

SPRING MIGRATION

PLACE	No. of years' record	Average date of spring arrival	Earliest date of spring arrival
<i>Atlantic Coast—</i>			
Washington, D. C.	8	April 7	January 1, 1876
Germantown, Pa.	6	April 9	April 3, 1888
Englewood, N. J.	3	April 11	April 1, 1898
Renova, Pa.	10	April 17	April 5, 1897
Alfred, N. Y.	11	April 19	April 10, 1895
Hartford, Conn.	9	April 12	April 3, 1901
Providence, R. I.	5	April 20	April 10, 1904
Eastern Massachusetts	12	April 15	March 18, 1894
St. Johnsbury, Vt.	5	April 21	April 10, 1896

SPRING MIGRATION, continued

PLACE	No. of years' record	Average date of spring arrival	Earliest date of spring arrival
<i>Atlantic Coast, continued</i>			
Lewiston, Me.	6	April 20	April 6, 1902
Plymouth, Me.	13	April 21	April 17, 1895
Montreal, Can. (near)	4	April 26	April 12, 1890
Quebec City, Can.	11	May 4	April 22, 1902
Scotch Lake, N. B.	6	April 21	April 19, 1902
St. John, N. B.	8	April 29	April 16, 1889
Halifax, N. S.	6	April 25	April 19, 1891
North River, Prince Edward Island .	5	May 2	April 18, 1891
<i>Mississippi Valley—</i>			
St. Louis, Mo.	7	April 4	March 30, 1888
Bloomington, Ind.	4	April 4	March 23, 1902
Oberlin, Ohio	6	April 10	March 21, 1903
Petersburg, Mich.	9	April 11	April 7, 1893
Ann Arbor, Mich.	10	April 9	April 2, 1904
Southwestern Ontario	15	April 15	April 6, 1904
Ottawa, Ont.	13	April 19	April 8, 1906
Charlwich, Ont., and vicinity . . .	9	April 25	April 13, 1890
Chicago, Ill.	12	April 7	March 24, 1893
Hillsboro, Iowa, and vicinity . . .	9	April 6	March 31, 1905
Central Iowa	14	April 7	March 20, 1905
Lanesboro, Minn.	6	April 9	April 5, 1888
Minneapolis, Minn., and vicinity . .	5	April 11	April 1, 1905
Aweme, Man.	3	May 2	April 25, 1903
Athabaska Landing, Alberta (near).			May 17, 1903

The Hermit Thrush, in one or another of its forms, ranges from the Atlantic to the Pacific, but in the West it breeds from Alaska to Arizona. The winter and summer ranges overlap for some hundreds of miles and the migrations of the more northern breeding birds cannot be accurately traced.

PLACE	No. of years' record	Average date of last one seen	Latest date of last one seen
Northern Florida	4	March 19	May 7, 1903
Raleigh, N. C.	6	April 23	April 29, 1892
Washington, D. C.	3	May 4	May 17, 1891
New Orleans, La.	5	April 8	April 13, 1895
Waterloo, Ind. (near)	5	May 4	May 17, 1905
Oberlin, Ohio	6	May 6	May 14, 1906
Chicago, Ill.	11	May 5	May 20, 1897

FALL MIGRATION

PLACE	No. of years' record	Average date of first one seen	Earliest date of first one seen
Germantown, Pa.	5	October 12	September 29, 1889
Beaver, Pa.	3	October 14	October 3, 1899
French Creek, W. Va.	3	October 12	September 3, 1889
Washington, D. C.	7	October 20	September 18, 1900
Raleigh, N. C.	8	October 21	October 16, 1885
Northern Florida	2	November 19	October 27, 1904
New Orleans, La.			September 26, 1894

FALL MIGRATION, continued

PLACE	No. of years' record	Average date of last one seen	Latest date of last one seen
Athabaska Landing, Alberta			September 14, 1903
Aweme, Man.	3	September 17	October 17, 1906
Lanesboro, Minn.	3	October 12	October 26, 1890
Chicago, Ill.	6	October 12	October 20, 1897
Central Iowa	3	October 15	November 9, 1889
Waterloo, Ind. (near)	5	October 22	October 25, 1889
Ottawa, Ont.	9	October 14	November 24, 1895
Southwestern Ontario	9	October 18	November 11, 1898
Oberlin, Ohio	4	October 27	December 4, 1903
North River, Prince Edward Island	2	October 10	October 19, 1887
Montreal, Can.	4	October 16	October 20, 1888
Scotch Lake, N. B.	5	October 22	November 3, 1905
St. John, N. B.	7	October 24	October 26, 1893
Southwestern Maine	8	October 27	November 14, 1903
Providence, R. I.	5	October 30	November 11, 1900
Southeastern New York	7	November 2	November 13, 1903
Germantown, Pa.	5	November 3	November 11, 1889
Washington, D. C.	2	November 10	A few in winter

Correspondence

Editor of BIRD-LORE:

Dear Sir: If there is one thing that is more aggravating to me than another it is to be misquoted, and, as Mr. Taverner has systematically misquoted me throughout his article in the last number of BIRD-LORE, I hope the Editor will give me a little of his valuable space for a reply.

In the first place, I did not intend to apologize for anything; the object of my communication was, first, to show that even egg-shells might be scientifically studied and, second, that the average egg-collector was as scientific in his methods as the average collector of anything. I made no comparison of the comparative value of the Old Squaw and Great Auk, but said that from a strictly scientific standpoint the Labrador Duck was not a whit more valuable than the Old Squaw. Neither did I say anything about Professor Newton's opinion of oölogy as a science, but that he came forward to defend the egg-collector. What he said may be found in the Report from the Select Committee on Wild Birds' Protection, published in 1873. I am not aware that he has changed his point of view since.

In conclusion, let me remark that but for Major Bendire's interest in collecting birds' eggs, we should not have had his charming and valuable 'Life Histories of North American Birds,' and while he *might* have taken up various other branches of ornithological work, the fact remains he did not.

Very truly yours;

BROOKLYN, N. Y., April 24, 1907.

F. A. LUCAS.

Notes from Field and Study

English Sparrows and Electric Lights

The English Sparrows in a country community near one of the large cities of the Middle Atlantic states have learned to make use at night of the electric lights.

Many of the houses in this district have recently been provided with lights over the entrance doors or in the porticoes; and the electric bulbs are, for the most part, suspended in decorative lanterns of an old-fashioned style consisting of a high-peaked iron top and a frame which encloses the glass below. This glass is spherical, and is so set in the frame that there is an open space all around between the glass and the top of the lantern. The birds have found this easy entrance, and have also discovered part way up inside the iron top a bar that looks as if made for a perch. There, above the warm light, they have found shelter at night, one bird, as a rule, being in each lantern.

The lights are controlled at a central plant and are turned on automatically at a fixed time, and on clear evenings they often appear before the daylight has gone and are then relatively inconspicuous. The birds, however, seem to be watching for them and quickly fly into the lantern-tops. On dull evenings, or when the lighting has been unusually delayed, the birds have frequently been seen on their perches in the lanterns before the lights have appeared.

For about an hour the Sparrows remain awake and on the alert, ready to take flight if investigation is inquisitive or is prolonged more than a very few minutes; but when they are once sound asleep they are not easily disturbed.

The birds were first observed in the lantern-tops in the cold weather that came early in January of this year, and from that time until the present (April 15) they have regularly occupied most of the available places.

The difference in temperature between the air inside the lanterns when the lights are on and that immediately outside is con-

siderable. With an outside temperature of 27° Fahr., the mercury in a thermometer whose bulb was placed on a level with the perch inside the lantern stood at 44° Fahr. three hours after the light had been turned on.

While it gives pleasure on a wintry night to think that the birds are enjoying the warmth of the electric lights, it is questionable whether the toasting at night followed by exposure to storm and wind by day can be beneficial. And, if this suddenly acquired habit of the English Sparrow is injurious, it is at variance with the commonly received idea that animal instincts are a safe guide.

If the greater warmth is so agreeable to these birds, why do they not go in winter to a warmer latitude? Are they unaware of the migration of other species, or are they physically unable to accomplish it? Or is it something so long absent from their hereditary make-up as to be non-existent to them?

With the coming of spring a new feature has appeared: In two lanterns straws and hay are accumulating. In one case they are collected inside the glass globe close around the electric bulb. This arrangement seems not to be satisfactory, for the work is not progressing. In the other lantern there is a closely-packed mass across the base of the cone-shaped iron top forming a compact layer above the electric light with one small round hole that seems like an entrance. Is this layer the base of a nest? Is the arrangement a sort of incubator? To investigate would be to destroy the structure.—
HARRIET RANDOLPH, Bryn Mawr College, Bryn Mawr, Pa.

Red-breasted Nuthatch at Sea

The notes of the Red-breasted Nuthatch migration in BIRD-LORE for December remind me of the birds that boarded our steamer last September.

It was, I believe, the 27th, and a strong northwest wind was blowing. When

between two and three hundred miles east of Newfoundland it was reported that several birds had come aboard, apparently much exhausted. They kept largely to the lower deck, where they were fed, and a number of the passengers saw them there, but no one seemed able to identify them until at last they were declared to be Labrador Waxwings. This announcement aroused my curiosity. I heard strangely differing descriptions of the birds, but I did not see them until we were nearing Boston Harbor, when they flew all about the steamer.

My first glimpse was of one running down a post, and shortly afterwards I saw several of the pretty little Red-breasted Nuthatches, apparently as happy to be in sight of land as we were.

Were they probably driven out to sea by the winds as they were leaving Labrador or Newfoundland?

Occasionally we see these northern birds here in the winter. Three years ago a pair of them appeared November 17, and remained with us until January 27.

They were daily visitors at my bird table, seemed very fond of hemp seed and were very friendly and familiar. I have not seen them here since, though I eagerly look for them every winter.—(Mrs.) M. B. MITCHELL, *Chattanooga, Tenn.*

The Wood Duck and the Canvasback in British Columbia

As an instance of the variation in numbers of some Ducks, I may cite my experience with two of the species you name.

When I first came to British Columbia, in 1887, the Wood Duck was comparatively scarce, though little Duck shooting was done then. Each year it became a little more numerous; in 1896 the species had reached the height of its abundance. In that year it was an easy matter in the lower Fraser valley to kill fifteen or twenty birds in a day, but not a small portion of the flocks passing through were killed. About sundown in September and early October flock after flock of Wood Ducks could be seen flying at a moderate height, from thirty to one hundred yards high. The direction of

flight was from east-northeast or, following the Fraser River, they seemed to come down through the Fraser cañon, which splits a deep rift in the wall of the Cascade Mountains. But the curious thing is that at no portion of the province east of the Cascades have I found the Wood Duck anything but a very scarce bird, and I never saw or heard of it in the Cariboo district (where these birds were heading from). Were these eastern birds from northern Ontario, northern Manitoba, etc.? Of late years they have somewhat decreased, though still fairly common.

The case of the Canvasback is still more remarkable. In 1887 I never saw the bird, and not until 1891 was I able to shoot one, though Duck shooting almost continually. There were considerable numbers on the coast, but up the Fraser it was almost unknown.

About 1894 it commenced to appear in the latter locality, and was very common in 1896 and has been of common occurrence since. Here this spring it was numerous, more so than I ever saw it before.

It is a common breeder in open country from latitude 54° northward, and a few breed even as far south as this latitude. East of the Rockies it breeds farther to the south.—ALLAN BROOKS, *Okanagan Landing, B. C.*

Bird-Notes from New Mexico

I fear that we are going to have trouble with the Flickers, and it worries me, for I can not ask every one to be as sentimental about birds as I am. I have heard them tapping on our wood cornice and veranda pillars. I don't see how worms could exist in painted wood. There is very little wood about here. Nor can I see how there can be any insects in plastered adobe, although we all know that the unplastered adobe houses are hotbeds of ants. We have lots of boxes around and there are wooden fence-posts, so I don't know what to do; all our birds seem very tame.

Some of our best farmers also complain of the Quail; in the evenings they descend in great flocks from the foothills, and feed upon the alfalfa. We are too far from the

foothills to be troubled by this; ours live in the orchard, and we prize them.

Apropos of Hawks—I have seen very few this winter, although Mr. Bartlett had told me of the great flocks which usually winter here, and I wonder if their scarcity has anything to do with the unusual trouble we are having with rodents! Our new ditch banks are literally riddled with gopher holes, and we are having great trouble in irrigating. Yesterday they found about thirty holes in half a mile of ditch!

The New Mexico rodents which break our ditches are gophers, also "commercial rats," field mice and others. We are rodent-ridden. We have had great trouble with the rat-holes in ditches causing flooding and delays in work. I saw a number of Hawks last autumn, but only one group of five all winter, although they are said to winter here. This is a wonderful country and almost anything can be done agriculturally if the rodents and insects can be kept down. We have more pests than I ever before saw or dreamed of; what would become of us without the birds? And yet they are censured for taking some grain and fruit, while it has literally to be snatched from insects. The Tanager is also greatly censured and often shot for molesting the bees.

I often watched them last summer and never found them doing any harm. I am happy to say that the Flickers did not return to our eaves. I hear them all about us. Our western Flycatchers and Meadowlarks are numerous and charming.—(Mrs.) CHARLES T. BARTLETT, *Victoria, N. M.*

The Blue Jay's Food

I noticed in the April, 1907, number of BIRD-LORE what is said about the Blue Jay as a cannibal. I fear the half has not been told; still, I would not wage war on the saucy, brilliant fellow who gladdens our grove the year round. Five or six years ago my manager had a serious attack of making money raising chickens, and purchased incubators, brooders, sanitary coops, etc. After the little chicks were placed in the brooders and confined in little pens about sixteen feet square, the Blue Jays found they

had a good thing and began acting up to their belief in its goodness by killing the chicks from one to three weeks old by the dozens. A Jay would swoop down into the pen, hit a chick nearly always in the eye and off again. In a few minutes back he would come and give the little chick another peck, and usually about the third time kill him, pick him up and fly a little distance away, pick out the brains and begin an attack on another chick. We tried to prevent this destruction by keeping on the watch and frightening them away, but still they would succeed in killing as many as twenty in a day. Finally anger took the place of admiration, and guns were called into use. Needless to say that the firing caused the migration from our groves of nearly all the birds we had protected for years, as well as the death of the Jays.

There is no question as to the killing of the chicks by the Jays, for many of us watched the manner of the Jay's attacks from start to fatal ending. If the chicken-raising had been continued I am sure other protection than the gun for the little fellows would have been instituted.—A. H. BARBER, *Waukesha, Wis.*

Nesting-Sites of the American Long-eared Owl in Manitoba

In "Notes from Field and Study" for March-April, 1907, there is a note by A. D. Tinker* on the "Unusual Nesting Site of the American Long-eared Owl."

In Manitoba it is not a very unusual occurrence to find these birds nesting on the ground. The nests that I have seen have always been in woods among aspens and willows, in rather damp situations, little or no attempt being made to build a nest.

This habit seems to be practiced only when no old Crows' nests are to be found in the immediate vicinity, as such nests seem to be always used when in a suitable situation.

In my twenty years' experience I have in no case found a nest of this species above

*We take this opportunity to correct a typographical error, Mr. Tinker's name having been inadvertently spelled with an F.

the ground that was built by the bird occupying it.

The same habit of using other birds' nests is practiced by the Western Horned Owl in Manitoba, but in this case it is usually an old nest of a Red-tailed Hawk that is selected.—NORMAN CRIDDLE, *Aweme, Manitoba*.

A New Robin Food

The snow-storms and cold of last week made a trying time for the advance guard of birds up from the South, but at least one Robin came out of it fatter than he went in. It was noticed nearly three weeks ago that he had taken possession of certain premises, and, when the snow came, apple was cut up for him and placed on the sill of an open bay window. He was glad enough to come and eat, and when the next lunch was set for him on the couch inside, it was a very short time before he had ventured in after it. For the following two or three days, when the snow kept falling and the ground was

covered, he remained in possession of the room, flying in and out at frequent intervals. But he would eat nothing but cut apple and shredded wheat biscuit. Pettijohn and oat-flakes he passed by, and at beefsteak minced for him he turned his beak way up, utterly refusing even in stress of weather to lower his standard of toothsome delicate angleworm.—H. S. BIXBY, *Plattsburgh, N. Y.*

A Late Warbler

On November 27, 1906, I saw a male Black-throated Blue Warbler, feeding in some shrubbery. I saw him again on December 1, and on December 9, I found him lying dead outside the door. The day before had been very cold, and I suppose that the cold, combined with lack of food, was the cause of his death.—LOUIS DURHAM, *Irvington, N. Y.*

[The specimen above mentioned was presented by Mr. Durham to the American Museum and was found to be in a greatly emaciated condition, having evidently died of starvation.—F. M. C.]



CATBIRD ON NEST

Photographed by F. E. Howe, Sterling, Ill., April 11, 1906

Book News and Reviews

USEFUL BIRDS AND THEIR PROTECTION. Containing brief descriptions of the more common and useful species of Massachusetts, with accounts of the food habits, and a chapter on the means of attracting and protecting birds. By EDWARD HOWE FORBUSH, Ornithologist of the State Board of Agriculture. Illustrated by the author, C. Allan Lyford, Chester A. Reed, and others. Published under direction of the Massachusetts State Board of Agriculture. [1907.] 8vo. xx + 437 pages, 171 figures, 56 plates.

In no single volume known to us is the importance of birds to man so satisfactorily established. Mr. Forbush is not only an ornithologist but an entomologist as well, and, furthermore, he has had wide experience in making a personal presentation of the results of his studies to those for whom they were primarily intended. He is therefore exceptionally well equipped to state the birds' case in their varied relations to man, and we are assured that no one who will read this volume conscientiously will fail to be convinced by his arguments.

The book contains an amazing amount of information and still is interesting reading—a rare and valuable combination. BIRD-LORE's space only permits of the following synopsis: Chapter I, "The Value of Birds to Man," under which are included sections on "Primitive Man's Relations to Nature," "The Increase of Insect Pests," "Capacity of Birds for Destroying Pests," "The Increase of Injurious Insects Following the Destruction of Birds," "The Destruction of Injurious Mammals by Birds," "The Commercial Value of Birds," "The Esthetic, Sentimental and Educational Value of Birds," etc.

In Chapter II, "The Utility of Birds in Woodlands," and the "Relations of the Bird to the Tree" are discussed. Chapter III treats of birds as "Destroyers of Hairy Caterpillars and Plant Lice," while Chapter IV states the "Economic Service of Birds in the Orchard." Chapters V and VI and VIII to X contain descriptions and biographies with special reference to food

habits of our common birds under such groupings as "Song Birds of Orchard and Woodland," "Birds of Field and Garden," "Birds of the Air," "Birds of Marsh and Waterside," etc. In Chapter XI we have an exceptionally valuable contribution to the question of bird destruction under the heading "Checks upon the Increase of Useful Birds," and in Chapter XII, under the title "The Protection of Birds," we have one of the best contributions to practical bird protection with which we are familiar. The illustrations, many of them by the author, are admirable, and, all in all, we have here a book which will long remain the most comprehensive statement of the bird's claims to man's attention.—F. M. C.

The Ornithological Magazines

THE AUK.—Several papers in the April issue deal minutely with the distribution of birds in limited areas, H. H. Kopman discussing those of Louisiana and Mississippi; B. H. Swales and P. A. Taverner, those rare in or wrongly attributed to southeastern Michigan, and J. F. Ferry, the winter visitors of a section of northeastern Illinois. R. Deane records an unusual flight of Goshawks (*Accipiter atricapillus*), composed, singularly enough, almost exclusively of adult birds, which, during the past winter, descended from the north and were noted by many observers from Maine to Manitoba.

H. A. Estabrook epitomizes the English Sparrow problem, and advocates extermination of the birds; A. Brooks describes a hybrid (with accompanying plate in black and white); R. W. Williams, Jr., offers further notes on some birds of Florida; W. C. Braislin, some on those of Long Island, N. Y., and A. C. Bent gives us a pleasantly readable account of the nesting of the Marbled Godwit (*Limosa fedoa*), with half-tones of its nest and eggs.

The lays of Bewick's Wren are interpreted in musical notation by A. H. Howell and H. Oldys; and who would suppose so

diminutive a bird could sing about three notes in six flats!

William Brewster separates the Black Rails of California under the name *Porzana jamaicensis coturniculus*, and, in another article, corrects the supposed records of the Cinnamon Teal in Florida and South Carolina.

Much might be said in favor of A. H. Felger's card system of note-keeping at page 200, but every system has its limitations, and the distinctness of the individual pen-pictures in our journals is lost by the use of any mechanical method, while the hopelessly unwieldy size to which card systems grow is another serious drawback. Poets and geniuses are not tied to card-catalogues, and can we think of White or Audubon or Burroughs or a dozen others with pockets full of ruled cards?

Changes in the names of North American birds are discussed in a paper by W. Stone. When a cast-iron code of rules for fixing scientific names is invented, stability may result, and meanwhile current usage is fixing vernacular ones to the confusion of those who ought to furnish handles that don't pull off.—J. D., JR.

THE CONDOR.—In the March number of 'The Condor' Finley continues his series of life-histories of western birds, illustrated with photographs taken by Bohlman. Among the Pelicans' is an interesting account of a breeding colony of the birds in southern Oregon, and the eight half-tones show clearly some of the habits of the old and young. The 'Migration and Nesting of the Sage Thrasher,' by Gilman, recounts the experiences of the author with this comparatively little-known bird at Palm Springs, Cal., and in southwestern Colorado. 'An Experience with the South American Condor,' by Samuel Adams, describing the finding of a nest and the collecting of the old birds and young near the mouth of the Rio Gallegos in Patagonia, is an article which should be read in connection with Finley's 'Life History of the California Condor.'* It is interesting to note the similarity in the nesting habits of the two birds

and also to learn that the Condor, instead of being confined to the Andes, as usually supposed, is found on the pampas and breeds in the barrancas or cliffs along the coast of southern Patagonia.

In 'Nesting Ways of the Western Gnat-catcher,' Miss Harriet W. Myers describes a nest found in the Little Santa Anita Cañon, Los Angeles county, California, and the manner in which the young Gnat-catchers are fed by their parents. An excellent piece of work on geographic distribution has been done by the editor, Joseph Grinnell, in a paper on 'The California Distribution of the Road-runner (*Geococcyx californianus*). All the authentic definite records of the occurrence of the bird in the state have been collected and plotted on a map, which is reproduced to illustrate the article. The distribution of the bird "seems to follow very closely the limits of the Upper and Lower Sonoran zones," and in the interior extends from Igo, Shasta County, to the Mexican boundary. 'Stray Notes from the Flathead Woods' consists of brief notes on five species of birds made by Silloway in June, 1906. In discussing 'The New Check-list' now being prepared by the A. O. U., Taverner suggests that the names of subspecies be printed in smaller type than those of species, and that the latter be given a distinctive English name. Some such plan as this would go far toward simplifying the 'Check-List' for readers who are now confused by the number of subspecies in such groups as the Horned Larks and Song Sparrows. Under the title 'A Forgotten Reference to the Natural History of California,' Walter K. Fisher summarizes the notes on birds in T. J. Farnum's 'Life, Adventures and Travels in California,' the second edition of which appeared in 1852.—T. S. P.

Book News

THE OUTING PUBLISHING COMPANY announce the publication of 'The Passenger Pigeon,' by W. B. Mershon, illustrated by colored plates by Fuertes and Allan Brooks.

* 'The Condor,' VIII, pp. 135-142, 1906.

Bird-Lore

A Bi-monthly Magazine

Devoted to the Study and Protection of Birds
OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Edited by FRANK M. CHAPMAN

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Bird-Lore's Motto:

A Bird in the Bush is Worth Two in the Hand

To the Editor alone is due the entire blame for the delay in the appearance of this number of BIRD-LORE. A voyage to the Southeastern Bahamas consumed double the time allotted to it, and, on returning, a Heron rookery, which under protection has developed conditions creditable to the days of Audubon, proved so alluring that we deliberately ignored the call of editorial duties, confident of the approval of BIRD-LORE'S readers.

To this same absence must be charged the sin of a sadly neglected correspondence; and may we beg further indulgence in this connection during the next two months, when field work will take us to the Canadian Northwest?

In 'Everybody's Magazine' for June, President Roosevelt, as reported by Edward B. Clark, expresses his indignation that, after all that has been said of their inaccuracies, the books of W. J. Long should continue to be used in schools for supplemental reading.

After exposing some of Mr. Long's errors, Mr. Roosevelt remarks: "The preservation of the useful and beautiful animal and bird life of the country depends largely upon creating in the young an interest in the life of the woods and fields. If the child mind is fed with stories that are false to nature, the children will go to the haunts of the animal only to meet with disappointment. The result will be disbelief, and the death of interest. The men

who misinterpret nature and replace fact with fiction, undo the work of those who in the love of nature interpret it aright."

Is it the undeniable literary charm of Long's books, or the dearth of desirable nature stories, or the activity of his publishers which, in spite of their proved perniciousness, still keeps them on teachers' lists?

In the April number of 'The Nature-study Review,' a writer speaks of the "fascinating tales of the wilderness, as told by Long, and the delightful life-histories of Wabbles the Song Sparrow and Bismark the red squirrel as recorded by Walton the hermit of Gloucester," and couples them with the "works of Burroughs and Thoreau," a grouping which we believe will make truth-loving 'Oom John' envy Thoreau his resting-place in Concord's churchyard.

Discussion of this subject with one of the leading educators of the country brought from him the surprising opinion that in the city, at least, it is of more importance that nature books used in supplemental reading should be interesting than that they should be accurate; it being argued that the immediate object of such reading is to arouse the child's curiosity.

Admitting that few children in our city schools have an opportunity to test the accuracy of the information they receive in regard to animal life, is it desirable that they be given as true that which is known to be false merely because it is interesting?

Nature study is designed not only to make the child familiar with the commoner forms of life, but also so to train his powers of observation that he will see more widely and more accurately; and no form of nature study which has not science, and hence truth, for its foundation can be expected to endure.

THE mention of 'Everybody's Magazine' recalls, by the way, the interesting cover of the April number of this magazine, which depicted a Scarlet Tanager perched amid pussy-willows, a striking and original combination of an April flower and a May bird.

The Audubon Societies

SCHOOL DEPARTMENT

Edited by MABEL OSGOOD WRIGHT

Address all communications to the Editor of the School Department, National Association of Audubon Societies, 141 Broadway, New York City

IN JUNE

What may one say of June? So much is to be said that silence perhaps is best,—silence that we may pause and listen, listen intently and open the eyes wide, that nothing escape us. Why attempt to catalogue the pictures that are daily hung against the wall of the sky or set upon lichen-covered granite easels against hangings of deepest green, or those elusive ones that, being painted by the mist of sunrise, vanish in full day?

Why attempt to reduce the soloists and chorus of the great natural oratorio to a programme of names and titled performances. Suffice it to say that all the birds will be there, at least all that have escaped the dangers of winter, of long travel and the guns of unfriendly lands held by barbarous hands.

But one thing let us beg of June, daughter of Juno, and that is that her temper may be even and that she distribute her rain and sunshine with impartiality; for upon the disposition of June does much of the weal and woe of the season's bird-life depend. If long rains flood the meadows and marshlands, and weigh down the tree branches making the foliage heavy and sodden, death and destruction visit many bird homes. The young of the ground builders are either drowned or die of cold and damp; while the tree-nests, especially those of the Thrush tribe in whose composition mud is used, melt and give way, and oftentimes a little sodden heap under a branch is all that is left to tell what has been.

On the other hand, if June is 'unco' hot and dry, and the tender foliage withers, many song-birds of open nests are sufferers, holding up open, gaping beaks to their distressed parents. In such a June as this the bird-bath and the water-trough are blessings, and every bird-lover living in regions without brooks or ponds should keep one filled; and even if there is water near by, each orchard and garden should have its own supply close to the nesting trees.

With the poet, we would praise God for June,—but let us not forget that as it is the season of bird song, it is also the month of their greatest anxiety; and, while we are listening to the music and enjoying the grace of their every motion, let us endeavor to lessen their cares as much as possible by supplying nesting shelter for those who crave it and ensuring privacy for those birds who gather near our homes with pretty confidence that we will help them to escape the preying habits of their wilder neighbors of remote woods and fields.—M. O. W.

THE BALTIMORE ORIOLE

By MABEL OSGOOD WRIGHT

The National Association of Audubon Societies

EDUCATIONAL LEAFLET NO. 26

"Hush! 'tis he!
My Oriole, my glance of summer fire
Is come at last."—LOWELL.

We, who punctuate our reading of Nature's calendar with bird and flower rather than by the artificial figures of the almanac, give to March the Bluebird and Song Sparrow, the Redwing and the return of the Swallows to April—and to May and June (for so does the rush of growth and migration flood these months that they should be taken as a continuous sixty-day jubilee), the Wood Thrush, Catbird and Oriole.

In one reading of the matter the Baltimore Oriole should be first mentioned, for his voice is that of the bugler that heralds actual spring, the long-expected, long-delayed mellow period, distinct from the almanac spring, that, when it once comes to us of the middle and north country, is quickly absorbed by the ardor of summer herself. Also is this Oriole the gloriously illuminated initial letter wrought in ruddy-gold and black pigments, heading the chapter that records the season; and, when we see him high in a tree against a light tracery of fresh foliage, we know in very truth that not only is winter over, that the treacherous snow-squalls of April are past, but that May is working day and night to complete the task allotted.

For as the Indian waited for the blooming of the dogwood, *Cornus florida*, before planting his maize, so does the prudent gardener wait for the first call of the Oriole before she trusts her cellar-wintered geraniums and lemon balms once more to the care of mother earth.

His Name and Identity This Oriole has history blended with his name; for it is said that George Calvert, the first Lord Baltimore, tired and discouraged by many of the troubles of his Newfoundland colony, in visiting the Virginia settlement in 1628, explored the waters of the Chesapeake, where he found the shores and woods alive with birds, and, conspicuous among them, vast flocks of Orioles. These so pleased him that he took their colors for his own and they ever afterward bore his name—a fair exchange.

The Baltimore Oriole comes of a parti-colored American family—Icteridæ—that to the eye of the uninitiated at least would appear to be a hybrid clan drawn from all quarters of the bird world. Yet it is typically American, even in this variety; for what other race would have the temerity to har-

bor the Bobolink, Orchard and Baltimore Orioles, Redwing, Meadow-lark, various Grackles, together with the vagrant Cowbird, in the branches of the same family tree?

One of the many welcome facts concerning the Oriole is the ease with which he is identified; and I say *he* advisedly, for his more industrious half, who is the expert weaver of the pair, is much the more somber of hue. In early May, or even as late as the middle of the month in backward seasons, you will hear a half-militant, half-complaining note from the high tree branches. As you go out to find its origin, it will be repeated, and then a flash of flame and black will shoot across the range of vision toward another tree, and the bird, chiding and complaining, begin a minute search along the smaller twigs for insects. This is the Oriole, *Icterus galbula*, as he first appears in full spring array,—his head, throat and top of back and wings black, except a few margins and quills that are white-edged. The breast and under parts, lower part of back and lesser wing-coverts are orange flame, while his tail is partly black and partly orange.

Two other tree-top birds that arrive at about the same time, one to remain and one to pass on, wear somewhat the same combination of red and black—the Redstart and the Blackburnian Warbler. But, besides being much smaller birds, they both belong to the pretty tribe of Warblers that, with a few notable exceptions, such as the Chat and Water-Thrushes, should be more properly called lispers, and not to be confused with the clear-toned Oriole.

Once the female Oriole arrives, usually several days after the

His Mate male, his complaining call, "Will you? Will you really truly?" gradually lessens; and after a few weeks, when nest-building begins, it quite disappears or, rather, is appropriated by the songless female, who, while she weaves the nest, is encouraged by the clarion song of her mate. The plumage of the female is brown and gray blended with orange above, the head, back and throat being mottled with black, while the under parts are a dull orange, with little of the flaming tints of the male.

Though the Oriole exposes himself more freely to view

His Nest than most of our highly colored birds, and in fact seems to regard his gift of beauty anything but seriously, he takes no chances, however, in the locating of his nest, which is not only from twenty feet above the ground upward, but is suspended from a forked branch that is at once tough yet so slender that no marauding cat would dare venture to it. This pensile nest is diligently woven of grasses, twine, vegetable fibers, horsehair, bits of worsted or anything manageable, and varies much in size and shape, as if the matter of individual taste entered somewhat into the matter. It has been fairly well proven that location enters largely into this matter, and that nests in wild regions, where birds of prey, etc., abound, are smaller at the top and have a more decided neck than those in

the trees of home lawns and orchard. Of the many nests that I have found and handled or else observed closely with a glass, the majority have been quite open at the top like the one pictured, and the only one with a narrow and funnel-like opening came from a wayside elm on the edge of a dense wood.

The female seems to be weaver-in-chief, using both claw and bill, though I have seen the male carry her material. It is asserted that Orioles will weave gayly colored worsteds into their nests. This I very much doubt, or, if they do, I believe it is for lack of something more suitable. I have repeatedly fastened vari-colored bunches of soft linen twine, carpet thread, flosses and the like under the bark of trees frequented by Orioles, and, with one exception, it has been the more somber tints that were selected.

In the exceptional case a long thread of scarlet linen floss was taken and woven into the nest for about half its length, the remainder hanging down; but, on resuming my watch the next day, I found that the weaver had left the half-finished task and crossed the lawn to another tree. Whether it was owing to the presence of red squirrels close by, or that the red thread had been a subject for domestic criticism and dissension, we may not know.

Be this as it may, in spite of the bright hues of the parent birds and the hanging shape of the nest that is never concealed by a branch upon which it is saddled, like the home of so many birds, an Oriole's nest is exceedingly difficult to locate unless one has noticed the trips to and fro in the building process; but once the half-dozen white, darkly etched and spotted eggs it contains hatch out, the vociferous youngsters at once call attention to the spot and make their whereabouts known, in spite of sky cradle and carefully adjusted leaf umbrellas.

If their parents bring them food, they squeal (yes, that is the only word for it); if they are left alone, they do likewise. Their baby voices can be heard above the wind, and it is only either at night or during a heavy shower, when a parent would naturally be supposed to be upon the nest, that they are silent.

As an adult, the Oriole lives on rather a mixed diet and
His Food has a great love of honey; but, of course, as a parent he is, with his sharp beak, a great provider of animal food for his home, and to his credit must be placed a vast number of injurious tree-top insects that escape the notice of less agile birds.

Complaints are frequently heard of his propensity for opening pods and eating young peas, piercing the throats of trumpet-shaped flowers for the honey, and, in the autumn before the southward migration, siphoning grape and plum juice by means of this same slender-pointed bill.

Personally, I have never lost peas through his appetite for green vegetables, though I have had the entire floral output of an old trumpet vine riddled bud and blossom; and I have often stood and scolded them from

under the boughs of a Spitzenburg apple tree, amid the blossoms of which they were rummaging (perhaps for insects) but also scattering the rosy blossoms right and left with torn and bruised petals. Powell, in 'The Independent,' writes feelingly of this trait of the Oriole, thus:

"An Oriole is like a golden shuttle in the foliage of the trees, but he is the incarnation of mischief. That is just the word for it. If there is anything possible to be destroyed, the Oriole likes to tear it up.

"He wastes a lot of string in building his nest. He is pulling off apple blossoms now, possibly eating a few petals. By and by he will pick holes in bushels of grapes, and in plum season he will let the wasps and hornets into the heart of every Golden Abundance plum on your favorite tree. . . . Yet the saucy scamp is so beautiful that he is tolerated—and he does kill an enormous lot of insects. There is a swinging nest just over there above the blackberry bushes. It is wonderfully woven and is a cradle as well as a house. I should like to have been brought up in such a homestead."

It seems as if the Oriole must be the descendant of one of
His Country the brilliant birds that inhabited North America in by-gone days of tropic heat, and that has stayed on from a matter of hereditary association; for in the nesting season it is to be found from Florida and Texas up to New Brunswick and the Saskatchewan country and westward to the Rockies, beyond which this type is replaced by Bullock's Oriole, of much similar coloring save that it has more orange on the sides of the head and the white wing patch is larger.

But, however much the Baltimore Oriole loves his native
His Travels land, the climate and the exigencies of travel make his stay in it brief; for he does not appear until there is some protection of foliage, and he starts southward toward his winter home in Central and South America often before a single leaf has fallen.

THE BALTIMORE ORIOLE

How falls it, Oriole, thou hast come to fly
 In tropic splendor through our northern sky?

At some glad moment was it Nature's choice
 To dower a scrap of sunset with a voice?

Or did an orange tulip flaked with black,
 In some forgotten garden, ages back,

Yearning toward Heaven until its wish was heard,
 Desire unspeakably to be a bird.

—Edgar Fawcett

The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by WILLIAM DUTCHER

Address all correspondence, and send all remittances for dues and contributions, to the National Association of Audubon Societies, 141 Broadway, New York City

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I do hereby give and bequeath to THE NATIONAL ASSOCIATION OF AUDUBON SOCIETIES FOR THE PROTECTION OF WILD BIRDS AND ANIMALS (Incorporated), of the City of New York,

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Legislation

"The world is growing better—I know it. A great unceasing movement toward truth and goodness is carrying slowly forward ever the character of this great, mighty, mysterious humanity. How slow it is, but oh, how real it is, the study of the ages tells. And yet behold how the good causes fail. Behold how selfishness comes in to paralyze each great endeavor for the good of man. Alas for him who sees only this surface fact; who does not feel beneath it all the heave and movement of the whole race forward toward goodness. . . . The best is strongest and shall ultimately conquer."—*Sermon by Bishop Brooks.*

The above seems also prophetic of the conditions that now obtain in the bird world as well as in the realm of humanity. The stories which follow of the results obtained during the past few months show that there is a steady, although slow improvement in legislative conditions; although, on the other hand, how true it is that the selfishness of

individuals bars the way for a more rapid advance. The hope for the future lies in the fact that right always conquers in the end, and, as the Audubon workers know they are absolutely in the right in the work that they are doing for the preservation of the wild life of the country, our courage must not decrease and our determination to succeed must not be abated one instant. Just here it is important to call attention to the fact that our membership is entirely too small; among the eighty millions of citizens of this country are there not a few thousand who will join in the movement to preserve for future generations the wild life of North America? Members, publish among your friends the work of this organization and ask them to give us their support and influence. It is hard to see this civic effort languish when the aid of a few thousands of interested persons would make the Association a great power for good. Bear in mind that if the vigilance of the National Association is relaxed an instant all of the work already done will be dissipated in the twinkling of an eye.—W. D.

CALIFORNIA.—The most important gain in California in the way of legislation in the interest of wild birds and game protection at the session of 1907 is a hunting license law fixing an annual fee of \$1 for hunters who are citizens of the state, \$10 for citizens of the United States who are non-residents of the state and \$25 for aliens.

There are one or two defects in this law that will no doubt be remedied two years hence, but there was quite a pronounced prejudice in many parts of the state against a hunting license law of any sort, and it was only by the hardest possible work on the part of the friends of game preservation

that this was sufficiently overcome to obtain the law even in its present form.

The open season for Doves has been cut from seven and one-half to three months, but the season opens at least a month earlier than it should. There was an almost unanimous consent of the sportsmen of the state to cut the Dove season to the one month of August, and this could readily have been done if the State Board of Fish Commissioners had not, in its report, recommended the longer season, which was incorporated in the successful game bill.

There is a pronounced popular sentiment in California favoring the taking of Doves from the game list, and giving them protection at all times. It is generally conceded that no open season satisfactory to all sections can be made for the whole state, that does not subject these birds to being hunted during a part of the time they have young in the nest. On this account, possibly 75 per cent of the sportsmen favor the dropping of the Doves from the game-list, and probably three-fourths of the remainder are opposed to opening the season before August. It now opens July 15, two weeks later than under the old law.

The Doves, chiefly because of the practice of hunting them in the nesting season, are fast being decimated in many parts of California, and it will be necessary within a very few years to close the season entirely in order to preserve the species. The hunters of the state, with very few exceptions, recognize this fact, and regret that the later period was not fixed for the opening of the season by the amended law. A number of counties protect Doves (Santa Cruz prohibits their killing at any time).

The open season for Ducks is now October 1, two weeks earlier than formerly, and the bag limit has been cut from fifty to thirty-five birds to the hunter in one day. There is evidence that bag limits on Ducks have not been generally respected in California, save where public sentiment and active and efficient game-wardens compelled such respect, but it is hoped that the increase of funds now available for game preservation, provided by the hunting license law, will give such increased warden

service as will put a stop to many former notorious violations of this sort by those who make a business of killing Ducks for the market.

Several county district attorneys ruled last year that the Robin is a "game bird," and was, therefore, not protected by the non-game law as it then stood. This resulted in much Robin shooting in two or three counties at the north, but happily the law has been amended to remedy this defect.

Much to be regretted, an open season of four months has been made for tree squirrels, which during the past two years have been protected at all times. This was also a recommendation of the State Fish Commission, and one for which there was seemingly no demand from any considerable number of hunters.

Other open seasons for game and the old bag limit remain unchanged, except that the deer season now opens and closes two weeks earlier than under the old law.

A law was passed providing that any owner of one hundred and sixty acres or more of land may enter the same as a State Game Preserve for one to five years, and thus absolutely prevent hunting thereon for such a period. If the intent of this law is properly carried out, it will do very much to restore the wild game in many depleted sections.

A strong effort was made to remove protection from the Meadowlark, but this was defeated in the Senate by a vote of three to one. When this bill was introduced in the Legislature, the Audubon Society issued a special leaflet on the food habits, and thoroughly established benefits of this bird to the agricultural interests, and a large edition was circulated at Sacramento and among farmers' organizations throughout the state.

The only piece of really vicious bird legislation enacted at the late session is an amendment to the non-game-bird law, removing protection from "all fish-eating birds, except Sea-Gulls and Blue and White Cranes." The Audubon Society used every possible means, including an appeal to the State Fish Commission, to prevent this crime against the several species of sea and

bay birds, practically all of them harmless, thrown open to inexcusable slaughter by this act. It showed by the best of evidence that there was no demand from the fishing interests for such a retrograde step, that there was no complaint against any of these birds, with the possible exception of Kingfishers, and that the proposed legislation was in the interest of no class save plume-hunters and those who supply "specimens" for the curio trade. The legislation removing protection from these birds, many species of which are already nearly wiped out by market and plume-hunters, is roundly condemned by every recognized naturalist and deplored by all classes, except those who slaughter and exterminate bird-life for coin. The Audubon Society is making an effort to remedy this legislation, for which no doubt a great majority of the legislators voted unthinkingly, by an appeal to county supervisors to protect the Terns, Herons and other harmless water-birds, other than game-birds, by county ordinances, which supervisors have authority to do under the county government act.

A carefully prepared and up-to-date bill for the protection of non-game birds, amending the law passed two years ago, was urged by the Audubon Society. The bill was modeled after the best non-game bird laws recently enacted in eastern states, had been revised by a representative of the Department of Agriculture, at Washington, and was indorsed and approved by more than forty farmers' organizations of the state. It should have had the support of every person who favors an effective law to stop the further destruction of our harmless bird-life. By the efforts of Mr. Ludington, Assemblyman from San Diego county, and a member of the Audubon Society, the bill passed the Assembly with practically no opposition. In the Senate, it was favorably reported by the Fish and Game Committee and passed to the third-reading file, where influences beyond the society's control prevented it from being called up for final vote.

A thoroughly commendable amendment to the trespass law, providing for the proper protection of uninclosed and other private lands, was introduced and success-

fully carried through the Senate by Senator Walter F. Price, of Santa Rosa, but in the Assembly met a fate similar to that of the Audubon non-game bird bill in the Senate. Had adjournment been delayed a few days longer, both of these bills could probably have been passed.—W. SCOTT WAY.

In February BIRD-LORE, page 53, reference was made to the splendid efforts of Mrs. Alice L. Park, Chairman, Humane Education Committee of the California Federation of Women's Clubs, to establish Bird Day in the schools of California.

Mrs. Park was successful in the legislature in passing the bill, but the Governor vetoed it, much to the indignation of the club women of California.

His action in this matter was hard to understand in view of the fact that he signed a bill appropriating five thousand dollars to purchase rifles for schoolboys. The minds of some statesmen certainly work in queer channels.

California will have other governors in the future; let us hope that one may be elected who will recognize the great benefit to the school children of the state, of Bird Day and what it stands for, bird protection and good civics.—W. D.

CONNECTICUT.—The prospect for better legislation for the protection of wild fowl and shore birds in Connecticut seemed at first sight rather discouraging. Keepers of shore hotels, owners of boat liveries, and some of the older gunners have always been in favor of spring shooting, and resented any attempt to shorten the open season as being an unwarranted interference with their business. It was through the efforts of these people, and the resulting influence on the legislature, that Connecticut took a retrograde step, which extended the open season to May 1. The agent of the National Association undertook a journey along the coast of Connecticut, making inquiries among the older gunners, and all agreed that the number of wild Ducks and Geese had fallen off tremendously in the past sixty or seventy years, that their destruction within the last thirty years had been even more rapid than before that time, and that the

Teal, Black Duck, Wood Duck, and other valuable food Ducks were in danger of extermination. They agreed, also, that most of the shore birds had been depleted even more than the wild fowl. It was learned that gunners were beating about the marshes in April, in order to find the nests of the Black Duck and so secure the mother birds, and that the few Wood Ducks left were being waylaid and shot when they left the nest to feed. The Audubon Society of the State of Connecticut, through Dr. Van Name, chairman of its Committee on Legislation, hoping to remedy these conditions somewhat, had prepared a bill fixing the open season between March 1 and September 1. Before this could be presented, however, your president succeeded in introducing into the General Assembly, by the medium of Judge Elmer S. Banks, of Fairfield, two bills, one establishing a close season on wild fowl beginning January 1 and ending August 31, and another providing a close season on shore birds beginning January 1 and ending July 31.

The bill prepared by the Connecticut Audubon Society was then withdrawn, and the united efforts of the members of the National Association, members of the American Ornithologists' Union and those of the Connecticut Audubon Society were concentrated to secure the passage of the bills introduced by Judge Banks. A hearing on these bills and others relating to wild fowl and shore birds was held before the Committee on Fisheries and Game in the Senate chamber of the capitol at Hartford. This was one of the largest and most enthusiastic hearings ever held before that body. The large gathering was due mainly to the work of Miss Laura G. Jones, of Hartford, local secretary of the Connecticut Audubon Society, who sent out invitations requesting the friends of the birds to attend. The committee was addressed by your president, by Dr. T. S. Palmer, of Washington, and the Rev. Herbert K. Job, of Kent, Connecticut.

Many other Connecticut people spoke in favor of the bills, and there was no opposition. The sentiment of the large number present was not only unanimous in favor of

closing the shooting on Ducks, Geese, Brant and Swan from January 1 to September 1, but the majority were in favor of prohibiting the shooting of shore birds during that time, and thus making illegal all spring and summer shooting. The Committee on Fisheries and Game reported favorably on two bills containing the above provisions, and also extending the close season on Rail. Such opposition as appeared in the House was speedily overcome. The agent of the National Association did considerable work among the farmers, who usually may be depended upon to come to the rescue of the birds, when the necessity of protecting them is called to their attention, and the bills passed the House almost without a dissenting voice. By this time the Audubon Society, of Connecticut, was fairly awake to its powers and opportunities, and when the bills came up in the Senate, the full force of this strong organization was brought to bear. As a result, the friends of the bill in the Senate, led by Senator Briggs, of Middletown, passed the measure by a practically unanimous vote.

Great credit for the result is due to the president of the Connecticut Society; to Dr. Willard G. Van Name, of the Committee on Legislation, and to Mrs. Helen B. Glover, secretary of that society, as well as to Mr. E. Hart Fenn, house chairman of the Committee on Fisheries and Game, and to Mr. John H. Sage, of Portland, secretary of the American Ornithologists' Union. It is but just to add that many sportsmen, who care more for the preservation of the birds than for the gratification of their own desires, lent moral support to the movement.

The Governor signed both of the Audubon bills and they are now laws of the state, and Wild Ducks and Shore Birds cannot legally be shot, in the future, in the spring of the year in Connecticut.

This is another state that has been added to the list of those that have adopted the wise and beneficial anti-spring shooting law and is a distinct gain in Audubon work in the year 1907.—EDWARD H. FORBUSH.

MISSOURI.—In 1897, an effort was made to enact a comprehensive "game" law in

Missouri, but it had less than half a dozen supporters. In 1899, the friends of the birds and animals made a very forceful effort. The Audubon Society, of Missouri, many independent lovers of nature and sportsmen became thoroughly awakened. They realized that a commercial interest was blocking their efforts and exterminating our many beautiful and useful creatures. This commercial interest (the game dealers) managed to retain their attorneys in seats in the legislature, and block the passage of a protective measure through the sessions of 1901 and 1903. In 1901, an ideal law passed the House and would have passed the Senate, but the chairman of the committee to which it was referred pocketed it and it was not reported back from the committee. These were the sessions when it was known that the Legislature was openly and notoriously corrupt. Then came the session of 1905, when the "Audubon Bill" passed and was signed by the Governor, although the attorney and representatives of the dealers made strenuous efforts to prevent it. The game dealers then organized as the Missouri Country Produce Dealers' Association, and placed paid men throughout the state to create sentiment to repeal the law. They spent great sums in printing and postage, in defeating candidates adverse to their nefarious business and electing those candidates who were friendly. By trading, threatening and other corrupt methods, they passed through both branches of the Legislature a most grotesque caricature of a protective measure. And the Governor of Missouri, in order to obtain the friendship of these destroyers for his political advancement, signed this measure, a measure that allows the shooting of fawns and does in night-time or by day, the running of fawns or does with dogs, the seining of streams, the selling of Quail and other game; that destroys the warden service, and is absolutely without means of enforcement. The most unfair methods were taken by the game committees and the speaker of the House; and now the timid and innocent deer, the lordly Turkey, the magnificent Ruffed Grouse, the dear little Bob-white, the strange Woodcock, the strutting Prairie

Chicken, the beautiful Wood Duck and all other game of our picturesque wilds are to be erased from Missouri forever.—HARRY R. WALMSLEY.

NORTH CAROLINA.—Considerable improvement was made at the last session of the Legislature in the game laws. The Audubon Society's bill providing for a close season on Woodcock, and making it illegal to sell game-birds during that period of the year when they cannot be killed legally, was passed, and this will doubtless be the means of saving the lives of thousands of birds annually. As usual, a large number of local county laws were enacted, but, almost without exception, these were of a more restrictive character. A few counties absolutely prohibit the killing of Quail and deer for a term of years. Laws were also passed for several counties providing for the protection of English Pheasants for a number of years, and the State Audubon Society will conduct experiments in raising these interesting game-birds for stocking purposes.

The general sentiment of the Legislature was manifestly more favorable to bird and game protection than heretofore, a marked instance of the result of Audubon educational activity.

The Audubon Society of North Carolina has recently purchased four islands in Pamlico Sound in order to give permanent protection to the large colonies of sea-birds which breed there. One of these islands is locally known as "Royal Shoal" and the other three collectively are called the "Legged Lumps." These are the main breeding places of the sea-birds along the North Carolina coast, at least eight thousand young birds having been raised there last summer. The species breeding on the islands are Laughing Gulls, Royal Terns, Wilson's Terns, Least Terns, the largest colony of this species in the country, Black Skimmers and American Oyster-catchers. The islands are in the care of Game-warden N. F. Jennette, who patrols that territory throughout the breeding season, in the large Audubon launch "Dutcher."—T. GILBERT PEARSON.

SOUTH CAROLINA.—By the provisions of the recent state bird and game law enacted by the South Carolina Legislature, the members of the National Association of Audubon Societies resident in that state were incorporated and clothed with all the powers usually enjoyed by a State Game Commission. Under its provisions, the Audubon Society has the authority to select all the game-wardens of the state who will operate under its direction. Money gathered from the sale of the \$10 state non-resident hunters' license goes to the society, and this, together with the membership fee, constitutes the fund which the society will have for carrying forward its work.

On April 9, the society was formally organized under its charter and includes, among the members of the Board of Directors, some of the best known people of the state. President B. F. Taylor, of Columbia, has already begun work by renovating the present list of game-wardens, and is carrying forward the educational work begun by the National Association. — T. GILBERT PEARSON.

SOUTH DAKOTA.—In this state the model law was adopted during the present session of the Legislature, and an Audubon Society has been organized which bids fair to be both active and aggressive. Its president is Charles E. Holmes, of Sioux Falls, and the secretary is George A. Pettigrew, of the same place.

OREGON.—A bill amending the model law was introduced and, notwithstanding the hard work done in opposition to the amendment by the Oregon Audubon Society and others interested in the preservation of the wild birds of that state, it passed the Legislature. The bill was vicious in its character, since it provided that all protection should be removed from "Owls, Hawks, Butcher-birds, Magpies, Black-birds, Woodpeckers and Applebirds, and, further, that nothing in this act shall be considered as preventing farmers, gardeners and orchardists from destroying any birds other than game-birds when necessary to prevent destruction of crops from the ravages of birds."

Governor George E. Chamberlain, after a careful examination of the bill, discovered how prejudicial it was to the best interests of the state, and very wisely vetoed the measure.

The National Association will take steps to have a large amount of educational literature circulated and many bird lectures given in that state before the next session of the Legislature, in order that the people may fully understand the value of wild birds, and will also have the claimed "depredations" of birds thoroughly investigated, in order to see how much truth there may be in the charges made by the orchardists.

TEXAS.—The Texas Legislature enacted, and the Governor signed, two bills for the protection of the wild birds and wild animals of this state, one being a game-warden statute, and the other a reenactment of the general game and bird law passed by the Legislature in 1903, the new bill being practically the same as the old bill, the changes being mostly unimportant. Under the law, which will be operative next July, the non-marketing and non-transportation sections are retained in all their strength, and that we conceive to be the most important of all. The law enacted in 1903, without a warden system for its enforcement, was, nevertheless, a means of saving to the state its wild birds and game in a great measure, although thousands of dozens of Quail were marketed and water fowl were slaughtered and sold in carload lots. The Texas Audubon Society estimates that the old law, without the warden system, reduced the slaughter after its enactment fully 50 per cent annually, and that if it had failed of enactment in 1903, and the state left unprotected from that time until now, there would be no game birds and game animals in the state now in sufficient quantity to make it an object to look after them. Prior to 1903, the slaughter was progressing at a rate which would have resulted in annihilation, and after the model bird and game law was enacted, it was only through constant vigilance of the Audubon societies and kindred organizations that its partial

enforcement was secured. The protectionists rallied in 1905 and prevented the repeal of the non-marketing and non-transportation clause, driving the market hunters' lobby out of the field, and immediately commenced distributing literature looking to the reenactment of the law, which would have expired this year by limitation, and the enactment of the game-warden bill, the efforts of those seeking protection having been blessed with success almost to the extent of the desire of those who sought to afford protection to the wild birds and the wild animals.

It is true that we did not get all that we asked for, because the Legislature refused to exact a license fee on the resident gunners, placing the expense of the warden system entirely upon the non-resident gunners, which will reduce the funds for game protection fully 60 per cent. The law will be new, and the means of enforcing it insufficiently organized, and it is likely that a great many non-residents will enter Texas, take game and get out again without paying a cent. If so, the fund will still afford enough for a commencement, and as it is pretty certain that legislation in the future will continue progressive, and that the warden system will be improved with each succeeding legislature, we may congratulate ourselves that we have achieved something which will, in the end, result in an ideal condition in the Lone Star State.

Another matter which we regret is that the Legislature refused to reenact the section of the bird and game law which permitted of the taking of wild birds and wild animals for scientific purposes. That entire section was eliminated, and the consequence is that the Bureau of Biological Survey can not, after next July, send its experts into the state for collecting material and securing data for bulletins, which have in the past proved so valuable to the farmers and the people generally.

We shall strive hard to educate the people sufficiently to induce them to insist that their representatives and senators at the next Legislature amend the bill, so that scientific inquiry may be continued by the Biological Survey. The issuing of certificates for the

taking of birds for scientific purposes, as permitted by the old law, had been so shamefully abused that it was impossible to secure an exception in favor of the Federal Government in that respect. We tried hard, but we failed and we regret it. The Biological Survey had undertaken one particular work which was of inestimable value to the South. Its experts had already ascertained that forty-two birds were destroyers of boll weevil, and the investigations in the cotton fields are still in progress. The Audubon Society has been informed by the experts sent here by the Government that much important work can be accomplished before the certificates issued to them under the old law expire, and that the interval will be short in which the work must be suspended. We have no doubt that the next Legislature will amend the law, so as to allow that inestimable service to continue until it shall be demonstrated that the only way to eradicate the cotton-boll weevil and all other pernicious insects is to protect the birds, so that they can increase and multiply and carry out the mission for which they were created.—M. B. DAVIS.

How very necessary drastic game laws and efficient means for their enforcement are in Texas is forcefully portrayed in the following communication from one of the best friends the National Association has:

"In the second column of page 56 of the January-February BIRD-LORE is an account of the exterminating slaughter of wild fowl by Texas market-hunters.

"It must stir every bird-lover and every real sportsman to protest. It recalls my own observations there eight or ten years ago at ———, about forty miles north of ——— on the coast. It was then a famous place for Ducks, Brant, Geese and Snipe. It was an upland, rising but a few feet above great stretches of marshes—the latter an ideal winter home for such birds.

"Until I went there, I never had an adequate conception of what it was to be in a place where such birds were plentiful. Mallards, Pintails and Teal were most sought for by the market-hunters. My guide, the second winter, was named ———. He told me that the Mallards had grown so scarce

that he had given up hunting and gone to farming, except when he guided parties. I noted quite a falling-off of Mallards, although then they were plentiful to northern eyes. — was the most noted hunter there. Such a skilful 'shot' as he could easily get one hundred Ducks in a day. He said that, in previous seasons, there had been thirty days when he got more than two hundred Ducks each day. He and my companion and I shot ninety-two Snipe in one day—a sickening record. I vowed it would be enough for a lifetime, and I think it has been. I was there a few days each winter, and I am now ashamed to say, in February. Then, I was thoughtless of bird protection; never realized, nor had heard about the evils of spring shooting; it was an open season, and that sufficed. This I mention, as I believe many sportsmen have just that attitude and need only the persuasive, educational influence, and the information and reasons shown for the preservation of birds by the National Association.

"Down there the hunters shoot Snipe for market only when they can find them squatting on the ground, for to shoot single flying birds would require more time and ammunition than would be covered by the price received for the birds. My 'hunter' told me—and certainly not to brag, but in connection with market-shooting of Snipe—that, once, after a sleet-storm, when the marshes were covered with thin sleet, except in the muddy trails trod by the large herds of cattle, the Snipe squatted in rows along the trails, and there the men potted them in paying quantities. That was the occupation of these men. Why not gather the harvest when it was ready before them, was, I presume, their justification, if, indeed, they ever thought any was called for, for such destruction of that gamey little bird.

"Many sportsmen went there for Snipe, and, with one or two good dogs, could easily get one hundred Snipe in a day; and seldom did even sportsmen halt till the sun went down! Upon later visits to —, I heard that all such game as I have mentioned had diminished materially. In the vicinity of — was a famous wild-celery

pond which a rich banker had gotten possession of. From all accounts, and the fights—legal and physical—over the rights to access to this pond which this 'bounder' of a sportsman had corraled and used as a show place for lions visiting —, and of his keeping a gang of men there to shoot for him and of his shipments to—and others, I judged this man as more guilty than the ordinary pot-hunter. They said he made lots of money out of the venture. I think his name is —, and probably I could ascertain positively. Perhaps, now, he may be opposing your efforts to have Texas enforce its non-export law, and to exact a law to prevent the sale of game and spring shooting. It really would not surprise me. We have individuals and clubs in Massachusetts—men of means, not real sportsmen it is true—who have 'ducking' and 'goose-stands' where they regularly have their care-takers shoot and sell birds to pay the expenses of, or make profits on, the 'stand.' This last, incidentally, is the cause of thinning-out the Geese and Black Ducks, which are an easy prey to the highly organized decoying artifices employed."

WISCONSIN.—A bill was introduced in the Legislature to repeal the anti-spring-shooting wild-fowl law in the state. The Fish and Game Commission and the Audubon Society of Wisconsin, and a number of other persons who are deeply interested in the matter, are combating the bill with all their power and will probably be successful in defeating the measure.

Wisconsin now occupies the proud position of being one of the first states to adopt the anti-spring-shooting law, and the position occupied by that state has always been pointed to by this Association as an example of excellent and wise legislation. Should a retrograde step now be taken there, the influence exerted will be very bad indeed in all other parts of the country. Wisconsin is so near the Chicago market, one of the great game-distributing points of the country, that there is undoubtedly a strong market-shooting influence that is at work in Wisconsin. There is no doubt that the great majority of the citizens of Wisconsin

sin are in favor of the wise and beneficial wild-fowl law now upon the statute books of that commonwealth, and the only persons who desire the repeal of the present excellent law are the market-hunters, who have no consideration for the future, but are simply trying to appropriate assets that belong to all of the citizens of the state and not to any individual.

Plume Sales*

The returns for the six plume-auctions held at the Commercial Sale-rooms, London, in 1906, are not encouraging reading for the bird protector. The numbers catalogued of Birds-of-Paradise and of packages of "Osprey" feathers were as follows:

	Osprey Feathers Packages	Birds-of- Paradise
February . . .	327	8,508
April	260	7,188
June	289	11,841
August	242	3,948
October	485	5,700
December . . .	265	3,600

This would give a total of 1,868 packages of "Osprey," but, owing to the fact that the packages are of varying sizes, the actual quantity of feathers can be only very roughly estimated.

An average of between 20 and 30 ounces to the package seems to be a fair estimate, and at 20 ounces the total would be over 37,000 ounces, or, on Professor Newton's calculations, the feathers of nearly 150,000 birds. The total numbers of the Paradise skins is 40,785. In both these cases a percentage must be allowed for unsold plumes offered a second time; but the figures remain sufficiently discreditable.

Apart from Egrets, Herons and Birds-of-Paradise, the notable features of the sales were the enormous numbers of Sea-Swallows (Terns) and Kingfishers on sale, and the growing consignments of quill-feathers from Eagles, Buzzards, Pelicans, Albatrosses, Swans and other birds. Ladies are usually

under the impression that a "quill" must be a harmless ornament obtained from the farmyard.

The trade in quill-feathers was even more remarkable at the first sale of the present year, held on February 12; of Albatross quill-feathers one firm alone catalogued some 15,000, and also a very large number of "Osprey wing-quills."

Another feature was the 7,000 heads and crests of the Crowned Pigeon on the market. The two handsome species, the Crowned Pigeon (*Goura coronata*) and the Victoria Crowned Pigeon (*Goura Victoria*) are natives of New Guinea and adjacent islands.

They are nowhere very numerous, and have little chance of becoming so, as only one egg is laid. Some years ago the plume trade penetrated New Guinea in quest of them, but lately fashion has run on other species. Now it would appear that the tuft of feathers on the head, known as "the goura mount," is again the incentive to the persecution of the Crowned Pigeon, and ladies who are tempted with "pigeon" feather trimmings will do well to ascertain what manner of pigeon is meant. The number of Birds-of-Paradise catalogued was 4,328 light and 400 dark, nearly all of which were sold. For "Osprey" plumes the demand was less; 504 packages were offered. Fifty-three Emu skins were put up; the Emu is the Australian representative of the Ostrich, much hunted and now being hunted to extermination.

There were 138 Impeyan Pheasants from India, which "sold at higher prices."

AIGRETTES. — The legal battle that has been going on in New Orleans, relative to the sale of aigrettes, whether taken within or without the state, has probably been finally settled in favor of their *non-sale*. President Miller, of the Louisiana Audubon Society, who has been the head and front of the fight, wires this Association that "The aigrette case was decided in our favor and the entire non-game bird (model) law has been upheld." Will women still defy law and sentiment?

*From 'Bird Notes and News,' Vol. II. No. 5, 1907, London, England.

Bird = Lore

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No. 4

A Southern California Aviary

By H. L. SEFTON

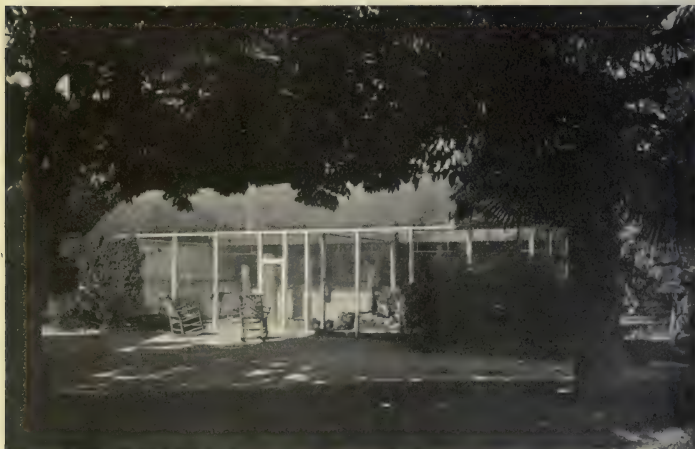
FOR over ten years the aviary which is the subject of this sketch has stood amidst the semi-tropical verdure, in the private grounds of the J. W. Sefton residence, in San Diego, California, where hundreds—yes, I think I may say thousands—of people from different parts of the world, have visited it. For years it was alone in its unique beauty, but now one sees others; for many have followed our hobby and taken up the study of birds, the climate of California being particularly adapted to the outdoor rearing of them.

The building is entirely open, save for the west and north end, and a strip of roofing, about twelve feet wide, that runs the full length of the building, over the nesting part. It covers an area of 20 x 40 feet, is built of one-fourth inch square-mesh wire, and has a wire partition through the center, so as to separate the tiny birds from their larger kin. Everything that love and thought can do for the comfort of the birds is done: there are pools of running water, low-growing shrubs, stumps of trees, swings and perches of all kinds; in fact, it is a home for the feathered people, which show their appreciation of it in song from the dawn of early morning until night wraps the world in sleep.

How did we begin? I will tell you: Many years ago—I think as many as twenty—a German Canary was given to a member of our family; he was a magnificent singer, a great pet and very tame. We always had a horror of small cages, so got him in a good-sized one, but left the door open in order that he could go in and out at his pleasure, until finally he went in only at meal time. The cage hung in the sun-room, and he flew about among the growing plants and vines perfectly happy. His favorite perch was on a clock that sat on the mantle in front of a large mirror in the living-room; here he would fly and sing to "the other bird," in the glass. He was a born flirt, and really behaved shamefully, sometimes getting so angry at the seeming impertinence of the fellow in the glass that he would fly right at him with mouth wide open. It was while watching these

antics we first conceived the idea of a mate for him, so we got 'Zip,' a pretty, motherly-looking bird.

We kept them in the cage for a few days and then opened the door, when the fun began. Don't tell me birds don't think! Why, Dick took Zip everywhere, into the parlor and out through the hall, on to the sideboard and the dining table, all his favorite places, and last, as a sort of crowning surprise, up on the clock, where he showed her the "other bird"; but he was completely nonplussed, for, instead of one other bird, there were two. Dick was furious; he ruffled up his feathers and was in for a great fight. Well, they finally went to housekeeping, *not* in the daintily lined wire nest provided for them in their cage. Ah, no! Dick was not that kind of a bird;



A SOUTHERN CALIFORNIA AVIARY

but very carefully and laboriously they picked out each thread that we had just as carefully put in, and carried them, together with many choice bits of fringe, etc., to an Indian jar that sat on a high shelf in the sun-room. They raised two families in Indian jars that season, and by the time Dick had shown the brood around, and we had rescued some from behind curtains, others from the backs of pictures, and discovered the whole lot asleep on the clock, we concluded that one bird loose in a house was very unique and interesting, that two birds were a good bit of a nuisance, but that a flock of nine was a calamity. So we decided to build them a house out in the yard, which we did; an 8 x 8 octagonal affair, that is now used as a jail for unruly members of the colony. The first prisoner was a Baltimore Oriole, sentenced for life for egg-eating.

At that time we had not thought of importing birds, but with the assistance of some of the neighborhood children, we tried raising young native birds. We raised, among others, about a dozen Redhead Linnets, and right here I want to tell a strange thing. The California Linnet is a pretty bird; the male's head and neck are a deep red, which, shading into the soft brown, makes an exceedingly smart-looking bird. This color does not show until after the first molt, so you can imagine our surprise when we saw the Linnets we had raised getting orange-colored heads. It must have been caused by a lack of coloring-matter we failed to supply in the food, for some old birds that we trapped, with perfectly red heads, changed to orange when the molting time came.

One learns a lot more by observation than by reading. We had very little real knowledge of birds, so bought and read eagerly all we could find on the subject; but we have, from our own experience, concluded that most of the articles are either written from theory or from a study of specimens of the taxidermist's art.

About this time we went abroad, and in our travels saw many odd and beautiful birds, so we decided to import some, which we did, and have continued to do up to the present time. I remember some little Finches from India arriving one day with a lot of others; they were round, fat little things, and made quite a fuss whenever they did anything, chattering with a shrill, rasping voice. We had a neighbor at that time building, and he, too, was round and fat, and made a lot of fuss and noise, so we dubbed them "the Doctors." That was ten years ago, and that pair of birds are the fore-parents of hundreds now, but we still call that variety "Doctors." Birds have characteristics the same as people,—some are good-natured and generous, others are crabbed, sour and mean. Watch a lot of them, and you will see.

We have raised birds which the books say never breed in captivity. We study them, make guesses at their wants and try to give them the environment they would have in their native haunts. For example, some birds never carry twigs; hence we must know that they don't build nests. For those birds we supply compartments, put a little sawdust in the bottom and, behold!—perfect contentment with no present indications of a race suicide! We raise hundreds of Grass Parrakeets. For them we have trunks of trees cut in sections and hollowed out, each section divided into from two to four compartments, each with an opening about the size of a silver dollar. These birds make no nests, but lay their eggs—some as many as six—right on the sawdust in the bottom, and commence sitting from the laying of the first egg, so that you will find, in the same nest, birds covered with pinfeathers and some just hatched. They are very cunning and make nice pets.

We have a pair of Rose Cockatoos, also from Australia, but, as these birds were never known to breed in captivity, we gave no thought to an

increase. One day we missed one of them,—they are so much alike we scarcely knew the male from the female. Several days went by and still the bird was missing. We had noticed that the remaining bird sat a great deal on or near a hollow log, hanging on the wall, so we decided to investigate. We reached down into the hollow, and such a howl as rose upon the air! Heavens, how that bird bit! We retired, vanquished, and left Mrs. Rosalie



AN INTERIOR VIEW

victor. Some weeks later she appeared, and we knew, from the hisses that issued from that hollow log, that her vigil had not been in vain; later on five youngsters came forth, thus proving there is more than has been writ.

Another member of the Parrot family is the Cockateel, a beautiful bird of soft shades of gray. The male has a pale lemon-colored head, a crest of lemon, and two bright orange spots on each cheek; he has a soft, musical whistle. We have raised quite a number. The young are the homeliest things imaginable. The only thing I can think of when I see them squirming, twisting their necks, and uttering their snake-like hisses, is St. George and the Dragon,—only in their case St. George is missing.

We have also the brilliant King Parrot, a peaceable, elegant bird; the mischievous, gorgeously colored Lory, with his acrobatic stunts; the Pink-crested Cockatoo and other commoner varieties.

Among the larger birds are three varieties of Pigeons. Two of them are game-birds of Australia—the Bronze and the Crested Pigeon; the other is

called the Bleeding Heart, rather larger than an ordinary pigeon, fuller breasted, of a dark gray-blue with a white breast, on which, directly in front, is a splash of bright red, that at a glance looks exactly as though the bird were wounded,—the illusion is perfect.

There are also several varieties of Doves, the rarest and most beautiful being the Blue-eyed Zebra of Australia, and the Red-eyed Pekin of China. The latter is the smallest Dove known, being, except for the length of its tail, about the size of a Norwich Canary.

The Finches are a study in themselves. There are many varieties, the smallest being the tiny Strawberry, which looks, as I heard a little girl say, "good enough to eat without either sugar or cream." It is the tiniest mite, exquisitely proportioned and with a song most wonderfully sweet and clear. I cannot tell, in this article, of all these interesting little birds as much as I would like to, for each kind has its own peculiar ways. For example, one tiny variety, commonly called 'Black-throat,' of the softest pastel shades of gray and brown, and with a bib-like collar of velvety black, makes a regular apartment nest. We have a series of little boxes about six inches long, with a small hole at one end of the sliding front. Into this little box they will carry the wild dried grass we provide, until the box is almost full; then, at the farthest end, they build a tiny nest in this dried grass, lining it on all



AMIDST THE SEMI-TROPICAL VERDURE

sides with soft bits of pampas plume, or any tiny feathers they can find. This is the 'lying in' room, as it were. Then down by the opening they weave the grass and any soft bits left over, into another nest. The eggs, usually four, are laid in the soft, dark nest, where the young stay until pretty nearly feathered; then they come down into the outer nest, where they stay until ready to fly out. They never go back into either nest again.

The Weavers, as their name implies, weave their nests, using the threads from the fan-palms. The Canaries build beautiful little nests among the calla lilies and in the marguerite bushes, but we find they have more success rearing their young in regular nesting cages away from the other birds. A Canary is a regular gossip, and will often neglect its home duties for the society of others.

Several years ago, we had a bird of the Grosbeak family. He was a beauty, gray with a bright scarlet head and crest. He never sang; indeed, I can't even recall a whistle, but he would sit for hours on a perch and we often remarked on his apparent loneliness. One day a gentleman who has traveled much and made a study of bird language, called and asked to see our collection. While looking at them he said, "I see you have an Brazilian Cardinal; does he sing?" I told him the bird was apparently dumb.

"Strange, strange!" he said. "Why, in their native home they are wonderful singers"—and then occurred a remarkable thing. The man, whispering to me to watch the bird, drew close to the wire, uttering a low, peculiar whistle. Instantly the Cardinal seemed to awaken, his crest lifted, he seemed to be listening; then, as the whistle continued, he answered sharply, eagerly, flew over to a perch by the side of the wire from whence came the whistle, and broke forth into a perfect torrent of melody.

The gentleman called a number of times afterward, and at each visit the bird sang to him, but never, as far as we know, at any other time. When the traveler's visits ceased the bird again lapsed into silence, and a few months later he died,—I always will believe from homesickness, for perhaps in his far-away home across the seas another lonely bird called vainly for his mate.

The Redbird, or Cardinal, is a remarkably handsome bird, but of so jealous a disposition that it is impossible to keep more than one pair in the same enclosure. You can put a dozen males together and all is peace and harmony, but put one female in and it is simply a survival of the fittest; so we have but two pairs—one on each side of the aviary. The female of one pair is as fine a singer as her mate, and he is a Caruso. They build fine nests, lay eggs and hatch their young, but never raise them.

Of all our birds I think we love the Robins best—perhaps because their voices recall the childhood home so far away, for whenever I hear a Robin's call I seem to hear the voices of old friends, see their faces and smell the blossoms from the apple orchard close by. We have Robins in San Diego

but only for a very few weeks in early spring; they simply stop to say 'Howdy' on their way to other lands. We had two Robins in our aviary—Rob and Bob. The latter was a rarely intelligent bird; he would stand with his head on one side and listen intently while the Skylark sang, or a Nightingale trilled, and then, at first very softly, he would try the notes over and over until he learned many of them. He knew my footsteps, and before he saw me would call a welcome. The many visitors to the aviary naturally gave more attention to the rarer birds; but one day when a gentleman visitor and I were standing looking at them, Bob walked gravely up and commenced his wonderful song. In amazement the gentleman listened, and then turning, asked, "Isn't that bird just an ordinary Robin?" Most indignantly I replied, "Indeed not; that bird is a most *extraordinary* Robin." We still have Rob, for, as is always the case, those whom the gods love die, and poor Bob sings no more for us. We laid him away as befitted so rare a bird, his casket a dainty white box filled with the petals of the fragrant La France rose, among which we laid him, and then buried him at the foot of a royal palm.

With over six hundred birds to feed, the question of proper food is no small one. We mix in large bins, built for the purpose, our own seeds, buying it direct from the importers in great sacks, and accepting only clean, bright seed. We use mostly canary and millet, with a little hemp in winter (which is very fattening), some sunflower seed, wheat and cracked corn. We have little rustic tables on which, twice a day, the seed is placed, and each bird takes what best suits its fancy. We always have cuttlebone and crushed shell scattered about, and once a week a little plate of raw ground beef is put on each side; those that need the meat eat it, others leave it alone.

One can learn much from the study of birds. They teach us virtue, generosity, kindness, gratitude—all those things that go to make living worth while. Many would glance at those birds, perhaps see nothing in them and pass on; others would be attracted by their plumage, by their song, by the beautiful whole of the great cage, with its tropical setting filled with life and song; but the student, he who sits and watches and studies, can learn much.

Briefly I will try to prove all I claim for them. The birds do not, except on rare occasions, hybridize. Each stays by his or her mate, each bearing his share of the burden and responsibility of the family. They are generous to the stranger that alights on the wire, going to him, giving him a friendly greeting,—so much so that on more than one occasion strange birds have of their own accord, after several visits through the wires, hopped down, and into, the half-open outer door (it is made double, one swinging out, the other in) and gone in to dwell among them; and surely it shows kindness to feed a nestful of half-starved babies they never saw before, and

I have seen that done. I had found four young Linnets, half-grown, some cruel boys had taken from their nest and left on the sidewalk to die, and, not knowing what to do with them, decided to put them in the aviary and see what would happen. What did happen was a great surprise. First one Canary and then another flew down. *Peep! peep!* the young called, but received nothing. The young birds' mouths meanwhile were wide open; then down came a female Linnet. She seemed to take in the situation at a glance, flew over to the feed tray, ate greedily, and then back to those yawning mouths, and she fed those birds until they were satisfied, and subsequently raised them. Could there be greater kindness than this? As for gratitude, birds are full of it; for everything you give them they thank you. If an apple, a crisp lettuce-head or a cluster of sweet alyssum or nasturtium is put within their reach, they pipe a word of thanks before they eat.

Our family, large as it is, is a happy one; there is little or no quarreling, for there is plenty of food and room for all,—only at eventide, when the sun begins to sink behind Point Loma, and the sea and sky is a mass of gorgeous coloring, then they scold a little. Perhaps some one, unmindful of the rights of others, has chosen the very particular limb or corner that belongs to some one else, and for a few moments there is discord—for each bird has his or her sleeping place—but gradually there steals a silence and, as the night shadows creep softly, from out of the west comes a crescent moon, that, peeping down shyly through the branches of the camphor tree, sees only the great cage with no signs of life within. All is still, save for a soft twitter now and then, like the last sweet words from a little child's lips before he drops off to sleep.



A Report on the Nesting Birds in the Vicinity of Riverview Park, Allegheny, Pa., for 1906

By WILLIAM G. PITCAIRN

THESE observations were all made in the vicinity of Riverview Park, Allegheny, Pa., the greater part in the park.

Riverview is a natural park of about two hundred and fifty acres, mostly wooded hills and much hawthorn growth, situated about two and one-half miles from the city of Allegheny. Being a picnic park, there is something going on almost every day during the spring and summer, and I think that this fact tends to limit the number of breeding birds; but, in spite of the conditions, the birds seem to prosper fairly well, their chief enemy being the small boy, who wantonly destroys many nests.

There has been a considerable increase, I think, in the number of birds in this locality, particularly in the cases of the Baltimore Oriole, the Downy and Hairy Woodpeckers, and the many species of migrants.

SPECIES	Number of nests found.	Inaccessible nests.	Nests which turned out successful.	Nests destroyed by other birds	Nests robbed or destroyed by persons.	Nests destroyed by a storm or like calamity.	Nests deserted by their owners.	Nests the history of which was not recorded.
Mourning Dove	2		1		1			
Yellow-billed Cuckoo	1						1	
Red-headed Woodpecker	2	2						
Flicker	4	1	2		1			
Nighthawk	1				1			
Crested Flycatcher	1				1			
Wood Pewee	1		1					
Baltimore Oriole	5	5						
Chipping Sparrow	4		2		1		1	
Field Sparrow	1		1					
Song Sparrow	3		3					
Rose-breasted Grosbeak	1		1					
Red-eyed Vireo	2				1	1		
Catbird	8		4		3			1
Brown Thrasher	2		1				1	
House Wren	16	3	16		1		2	
Blue-gray Gnatcatcher	2	1	1					
Wood Thrush	3		1		1		1	
American Robin	22	2	9		7		3	1
Bluebird	14		6	4	4			
Total	95	14	43	4	22	1	9	2

Some breeding species of which no nests were found—Ruby-throated Hummingbird, Northern Yellowthroat, Ovenbird, Yellow Warbler, Towhee, Vesper Sparrow, American Goldfinch, Chimney Swift, Indigo Bunting, Cowbird.

Bird Protection in Italy as It Impresses the Italian

By FRANCIS H. HERRICK,

Author of 'The Home Life of Wild Birds'

I

I WISH it could be said that Italy was at last beginning to awake to the necessity of protecting its bird-life, but thus far the efforts of a few ornithologists and humanitarians seem to have been of little avail.

Individual protests of the strongest kind have been made; international congresses have been held and stringent laws proposed, but little has been accomplished. The annual hecatombs of song-birds are still offered up, and the great peninsula of Italy, famed for centuries as one of the most beautiful and fertile spots of the earth, which should be teeming with bird-life at all seasons, is well-nigh desolate.

In a former article (in *BIRD-LORE*, November-December, 1906) I spoke of the general absence of bird-life in Italy as it impresses an American traveler and resident in that delectable country. Italian birds are trapped and shot in incredible numbers, especially during the spring and fall migrations, without respect to kind, size or habits, and are regularly sold in the markets as food for man and beast. Comparatively few birds are thus allowed to breed, and outside of the limits of certain cities, no adequate or uniform protection is afforded those which succeed in rearing young on Italian soil. There is no strong public sentiment in favor of the birds, and their service to agriculture is doubted. We showed that, in consequence of the destruction of birds in Italy, the little insect-eating lizards had undoubtedly increased, that they form a vast army, enlisted to aid the farmer by helping to save his crops; yet, in spite of the reptile brigades, many districts suffer, and famine is not unknown. But the Italian might reply: "You are jumping to conclusions too fast; there is a fatal flaw in your reasoning; lizards, like birds, are indiscriminate destroyers of insects; how can you know that they both do not effect more harm than good, or, at least, no less harm than good by destroying parasitic and other insects beneficial to agriculture?" We shall meet this question again. It goes to the very root of the problem, and may well stagger any one who has accepted a sentimental solution to this large problem, without question.

Before considering remedies for this hard lot of the birds, we will let the Italians speak for themselves. The subject is wide-reaching, and I must depend upon relatively few sources for information, but these are suggestive, and, so far as they go, seem to be authoritative.* I made a number of visits to the University of Rome to examine the excellent collection of stuffed birds in its museum, which forms a very useful and instructive

*It should be added that my observations in Italy were made in 1903-4, but, so far as I am aware, the fortune of the birds has not materially changed since that time.

exhibit. A curious fact about this collection, which furnishes unimpeachable testimony of the ruthlessness of Italian pot-hunters, is that a very large proportion of these specimens, great or small, common or rare, were obtained from the Roman markets, and are often thus marked (for example, "*Mercato al Pantheo*") with the date. Besides the common song-birds of Europe there were Grebes, Loons, Egrets, Herons, Gulls, and many others too numerous to catalogue here which found their way to the markets in Rome at various times of the year.*

The curator of the museum informed me that the smaller birds were protected from April 15 to August 15, the close season for water-fowl being shorter. As we shall see, different regulations have been in force in different provinces, but the result does not seem to have been to preserve the birds or to augment the bird-life of the country, but rather to improve the business of the gunners and snarers at other times. My informant would not admit that the killing of wild birds had led to any injury of vegetation or of crops.

Further, I interviewed the director of the Royal Institue of Forestry at Vallombrosa, and submitted to him a series of questions upon the subject of bird protection in Italy, but this kindly man was unable to give me any information on the subject. The idea of protecting the lives of wild birds seemed as foreign to his thought as the "canal system" of the planet Mars. "*Quod semper, omnibus, ubique*," what has always been done by every one, everywhere, seemed to him eminently proper. The director knew that the practice of killing song-birds was very old, but he thought it did no harm, and he could not refer me to any literature upon the relations of birds to man.

Sig. Nigro Licò has written an interesting manual† on the protection of animals, from the standpoint of an Italian, and Professor Antonio Berlese,‡

*It would require a far greater familiarity with the birds of Europe than I possess to identify a large part of those offered for sale in Italian markets, especially when the bodies of the victims are plucked or even skinned, as is sometimes the case. I will note here a few of the kinds seen in the Roman markets in 1903-4, concerning the identity of which there was little or no doubt. When the Latin name is given, the common Italian one follows in brackets: *Turdus musicus* (*Tordo*), the name used indiscriminately for various species by the populace), Song Thrush, February 29. *T. pilaris*, Fieldfare; sold at 8 cents apiece (in markets apparently under the name of *Grives savoyard*), February 29. *Erythracus rubecola* (*Pettiroso*), Robin Redbreast; seen tripping about the Medici gardens, March 9. *Vanellus cristatus* (*Pavoncella*), Lapwing or Plover; seen on the marshes in Holland in early September; very common in the Roman markets from January 1 to April 1; sold in the markets, and hawked all over the city in long strings, bringing ten to twenty cents apiece. *Gallinago caelestis* (*Beccaccini*), on sale at Ponti's on the Corso at twenty cents each, February 29. *Allodola*, a large Finch streaked all over with umber and buff, to be seen in great piles in the markets toward the last of February and in March. About twenty-five other species were more or less common in the markets of Rome at some time of the year.

† La Protezione degli Animali (Manuali Hoepli), Milano, 1902.

‡ Bolletino di Entomologia Agraria, anno VIII, Num. 5-9. Padova, 1901.

director of the Royal Station for Agricultural Entomology in Florence and a distinguished entomologist, has very decided opinions upon the relations of birds and insects to agriculture. Aside from every question of sentimentality, he considers it an open question whether wild birds are not, upon the whole, more destructive than useful in their relation to insects, and thus to the farmer and his crops. He considers that predatory and parasitic insects are quite capable in most cases of controlling injurious species, while many of these really useful agents are destroyed by birds*. This naturalist is now engaged upon a treatise on insects, the concluding volume of which will deal with the relations of insects to man. We may examine his views more fully at some future time, but, since the latter work is not yet completed and his earlier writings are not readily accessible, we shall follow for the present the compilation of Licò.

Licò devotes a chapter to the relation of birds to agriculture in which he weighs the opinions of Italians both in favor of the birds and against them, taking a stand rather guardedly with the latter. In the following paragraphs I shall translate freely or literally from Licò, or even paraphrase his remarks, in order to present his meaning or to define his position and that of others upon this important question. Quoting from a paper delivered by Comm. C. Durando before the National Zoöphile Society of Italy in 1899, he says:

"In Italy, while the olive fly and the piralidi† cause annually losses of several millions of francs, there is a furious hunt after birds of every kind with firelocks, drag nets, bird-lime, snares, as well as mirrors, bird-calls, artificial decoys, and even with birds caged and blinded for the purpose. At every period of the year, without regard to the laws which prohibit it, hunting is carried on. The prey is sold with impunity in the public markets in the close season, and, what is worse, they do not spare the nests of young birds, not even those of the poor Swallows. It is estimated that in all Italy the annual hecatomb amounts to ten millions of individuals, among which the Landsteiner of Wiholsburg reckons three millions Swallows.

"As a result of this, one should not wonder at the fact that not only in Italy, but also in foreign countries and especially in Germany, the alarm has been sounded and has spread from one state to another so that it has been turned into a kind of proverb which one hears everywhere repeated; 'The birds are the best allies of the farmer; let us protect the birds.'

"One of the most fervent of our ornithologists is Sig. C. Ohlsen. Animated with a passion and a persistency worthy of better success, if not a better cause, he does not limit his exertions to lectures on this subject,

*For the reference to Professor Berlese's work and for this expression of his views I am indebted in the first instance to the courtesy of Dr. L. O. Howard, Chief of the United States Bureau of Entomology, and later to Professor Berlese himself.

†Lepidoptera (moths and butterflies), of which we are told in another place that there are twenty-eight genera in Italy, and that all of them are very injurious to agriculture, especially to the apple, to hemp, and to the vine.

but, with the aid of a political press, tries to scatter his ideas among the people. His various articles which have appeared for this purpose in the journal 'Il Sole' of Milan present ample details for confirming those principles which are briefly stated here. He further shows how the destruction of forests, no less than shooting, has led to the decrease of birds and the consequent multiplication of insects."

Under the heading of "Friends True and Imaginary," Licò continues: "Regarding this maxim a recent entomological school has attempted to establish the two following cardinal ideas: (1) The enemies of injurious insects should be sought in the order of insects, and (2) insectivorous birds destroy not only injurious but useful insects as well. In support of the last thesis, the remarks of the distinguished ornithologist, Dr. T. Salvadori, delivered to the Chamber of Deputies in Vienna, on December 9, 1891, are quoted in part as follows: 'You must have heard, O gentlemen, repeated a hundred times the eternal refrain—"Protect the birds! They are very useful, because they destroy a great quantity of insects!" In regard to this question, I would like to ask upon what kinds of insects do the little birds chiefly feed, since the merit of their activity hangs upon this question; in which of the two warring armies do they select their victims? Do they feed chiefly upon the destroyers of our woods and fields? With all security and determination, I answer, No!'"

Licò then observes that the birds which devour harmful insects should be preserved, while those which feed upon useful kinds should be destroyed as quickly and as painlessly as possible. It is recognized that the question of the utility of wild birds is a complicated problem, because it embraces various elements. In order to decide whether a bird is useful or injurious, we must inquire, says Licò, first, whether the products of agriculture or insects themselves are its prevailing food, and second, whether such insects are in a greater degree useful or injurious under all conditions. Lists of the useful and harmful birds are then given as approved by an international commission for the protection of birds and agriculture, which sat in Paris in 1895.*

While this classification of the good and evil may be unjust or inaccurate, on the other hand, says Licò, the figures which Sig. Ohlsen has set down as the measure of the loss to Italy through the abuse of hunting do not have the appearance of accuracy. In this regard the 'Naturalist's Bulletin' (Sienna, 1896) offers the following comment: "Dr. Carlo Ohlsen, who has very decided views in regard to the losses of agriculture due to hunting, in an article published in a journal referred to above, recommends, in his usual style, excessive rigors for the sport, and says that while the public treasury received only 250,000 lire (francs) from the sale of the hunting

*In the class of birds condemned as injurious to agriculture, to hunting or to fishing are Eagles, Kites, Hawks, Goshawks, Falcons, Owls, Crows, Magpies, Jays, Herons, Bitterns, Pelicans, Moor-hens and Coots.

permits, agriculture incurred a loss of 25,000,000 lire at least. How does the distinguished Sig. Ohlsen prove his estimate of this damage? Besides proof to the contrary, we maintain that this sum is wholly imaginary, because we believe that this gentleman cannot be in a position to distinguish the utility from the harm which birds bring upon the cultivated plants by feeding on insects, some of which are certainly of much more use to agriculture than a few birds."

The same sheet for November 15, 1897, further expresses its views upon the subject as follows: "As we have remarked on other occasions, there are most estimable persons and distinguished writers who fall into contradiction in their efforts to prove the utility of birds and the need of excessive measures in order to protect them, the outcome of which would bring more harm than good to Italy. Here is another example of their efforts: 'An esteemed sportsman and writer upon sporting matters has published in a periodical of sport a plea for a single hunting law, and in it we find the following remarks: "The immense slaughter of little birds which is carried on in autumn by means of nets, especially in upper Italy, arouses everywhere even in foreign countries the fiercest protests."'

"There are millions of pretty little birds which hunters destroy every year by carefully crushing the cranium. In order to form an idea of this slaughter, it is sufficient to walk at this season (October and November) in the market place at Bergamo and at Brescia. There are to be seen, Robin Redbreasts, Thrushes, Sparrows, and other kinds piled up like grain along the walls. Pass at once one good law that shall put an end to such barbarity and such insane destruction. And here it is understood that this good law should be of such a character as to prohibit absolutely the use of the nets in hunting everywhere."

Now hear Licò's comment upon these sane remarks: "Let us ask if, after so many, many years that hunting has been carried on by the use of nets, after our fields have become less and less suited as covers for the poor little birds, after that the government has shown that it is absolutely unable to protect the birds during their reproductive period among us,—if after all this there can still regularly occur that enormous slaughter of millions of little birds, so that they can be seen in the markets like sacs full of grain, then why condemn absolutely hunting by means of nets, since by this very showing the method of hunting has not yet caused grave damage? Why renounce a thing certainly useful in order to substitute another which is very problematical?"

I have given this long and almost verbatim translation in full, because it illustrates the kind of argument which is sometimes used, and used no doubt with a certain degree of sincerity, to bolster up a bad cause. It is a sad case of the blind leading the blind, for the entire bottom of this kind of argument drops out the moment we consider the fact that the present great

destruction of bird-life in Italy falls not upon the resident species which alone belong to the Italian soil, but upon the migrants,—the birds of passage which belong to the rest of the world. Owing to the compass-like precision of their instincts, one and all have kept for ages to the fatal overland route in passing the peninsula of Italy on their migrations. The resident species are as dead as the ancient Romans themselves, who fortified the Capitoline Hill or built the Colosseum. When the migrants really give out, Mr. Editor, so that they are no longer piled in your markets like grain, it will be a sign not that "grave damage" has been done to Italy alone, but that a large part of the bird-life of two continents has been wiped out. In discussing the relation of birds to man, the migratory instincts, and the relation of the country to the rest of the world, are just as important as the food habits. Where do the millions of Swallows and the smaller migratory song-birds, which are annually slaughtered for food in Italy, come from, if not from central, northern, eastern and western Europe, and where do many of them go, if not to Africa by way of Italy and Spain?

(To be concluded)



WOOD THRUSH ON NEST

Photographed by F. E. Howe, Sterling, Ills., June 11, 1906

The Massachusetts Audubon Society's Bird-Lists

ONE of the means employed by the Massachusetts Audubon Society to interest its members in the practical side of bird study is an invitation to make lists of the birds noted in the state during the year, blanks being furnished for the purpose of properly recording observations. The best ten lists received by the secretary for the Society for the year ending December 31, 1906, were made by the following members: Lidian E. Bridge, West Medford, 184 species; James L. Peters, Jamaica Plain, 164 species; Anna K. Barry, Dorchester, 138 species; Percival S. Howe, Jr., West Newton, 138 species; Louise Howe, Brookline, 116 species; Henry H. Lowell, Newton Centre, 115 species; William T. Barker, Jamaica Plain, 111 species; Bertha Langmaid, Boston, 108 species; Samuel Dowse Robbins, Belmont, 86 species; Georgianna M. Wheelock, 63 species. The two lists first mentioned are published herewith.

Name of Species	List of Birds observed by Lidian E. Bridge, West Medford, Mass., from January 1, 1906, to Jan- uary 1, 1907.		List of Birds observed by James L. Peters, Jamaica Plain, from January 1, 1906, to January 1, 1907.	
	Locality	Date	Locality	Date
Holboell's Grebe	Nahant	Jan. 6	Nahant	Feb. 3
Horned Grebe	Middlesex Fells	Oct. 22	Ipswich	Oct. 20
Pied-billed Grebe	Middlesex Fells	Sept. 21	Jamaica Pond .	Oct. 24
Loon	Nahant	Jan. 6	Nahant	Feb. 3
Red-throated Loon	Nahant	Jan. 6	Nahant	Oct. 6
Black Guillemot	Ipswich	Aug. 29	Ipswich	Nov. 17
Parasitic Jaeger	Ipswich	Nov. 9	Brighton	Jan. 13
Kittiwake	Middlesex Fells	Jan. 21	Boston	Jan. 1
Great Black-backed Gull	Medford	Jan. 7	Boston	Sept. 29
Herring Gull	Ipswich	Nov. 17	Vineyard Haven	Aug. 15
Ring-billed Gull	Muskeget	July 28	Vineyard Haven	Aug. 15
Laughing Gull	Muskeget	July 28	West Tisbury .	Aug. 31
Common Tern	Muskeget	July 28	Revere	Jan. 20
Arctic Tern	Muskeget	July 28	Ipswich	Oct. 20
Roseate Tern	Muskeget	July 28	Newton	Jan. 13
Least Tern	Muskeget	July 28	Revere	Feb. 17
Gannet	Ipswich	Nov. 9	Natick	Apr. 7
Double-crested Cormorant	Middlesex Fells	Mar. 11	Cambridge . . .	Mar. 14
American Merganser	Nahant	Jan. 6	Nahant	Feb. 3
Red-breasted Merganser	Middlesex Fells	Oct. 22	Squantum	Apr. 14
Mallard	Middlesex Fells	Apr. 8	Boston	Jan. 1
Black Duck	Middlesex Fells	Jan. 21	Nahant	Dec. 27
Red-legged Black Duck	Middlesex Fells	Apr. 8	Revere	Jan. 20
Blue-winged Teal	Nahant	Jan. 6	Revere	Feb. 17
Scaup Duck	Squantum	Apr. 14	Revere	Jan. 20
Lesser Scaup Duck	Nahant	Jan. 6		
American Golden-eye	Squantum	Dec. 19		
Buffle-head	Nahant	Jan. 6		
Old-squaw	Nahant	Feb. 22		
American Scoter	Nahant	Feb. 22		
White-winged Scoter	Nahant	Feb. 22		

Name of Species	List of Birds observed by Lidian E. Bridge, West Medford, Mass., from January 1, 1906, to Jan- uary 1, 1907.		List of Birds observed by James L. Peters, Jamaica Plain, from January 1, 1906, to January 1, 1907.	
	Locality	Date	Locality	Date
Surf Scoter	Nahant	Jan. 6	Nahant	Feb. 3
Ruddy Duck	Middlesex Fells	Oct. 22		
American Bittern	Belmont	May 5	Ipswich	May 19
Great Blue Heron	Ipswich	May 19	Ipswich	May 19
Green Heron	Middlesex Fells	May 20	Dedham	May 5
Black-crowned Night Heron	Middlesex Fells	May 20	Morton Marshes	May 8
Virginia Rail	Cambridge	June 5	Cambridge	May 25
American Coot	Cambridge	Nov. 3	Jamaica Pond	Oct. 24
American Woodcock	Medford	Apr. 8		
Wilson's Snipe	Medford	Mar. 18		
Pectoral Sandpiper	Ipswich	Aug. 30		
White-rumped Sandpiper	Ipswich	May 23	Chilmark	Aug. 18
Least Sandpiper	Ipswich	May 19	Ipswich	May 19
Red-backed Sandpiper	Ipswich	Sept. 28	Nahant	Oct. 6
Semipalmated Sandpiper	Ipswich	May 19	Ipswich	May 19
Sanderling	Ipswich	May 19	Ipswich	May 19
Greater Yellow-legs	Cohasset	May 30	Ipswich	May 19
Yellow-legs	Ipswich	Aug. 17	West Tisbury	Aug. 24
Solitary Sandpiper	Middlesex Fells	May 18	Franklin Park	May 18
Bartramian Sandpiper	Ipswich	Aug. 17	Chilmark	Sept. 8
Spotted Sandpiper	Middlesex Fells	May 11	Franklin Park	May 4
Black-bellied Plover	Ipswich	May 19	Ipswich	May 19
American Golden Plover	Nahant	Sept. 27		
Semipalmated Plover	Ipswich	May 23	Chilmark	Aug. 24
Piping Plover			Chilmark	Aug. 24
Ruddy Turnstone	Nahant	Sept. 27		
Bob-white	Middlesex Fells	Mar. 11	Franklin Park	Jan. 10
Ruffed Grouse	Middlesex Fells	Mar. 31	Holden	May 12
Marsh Hawk	Middlesex Fells	Apr. 27	Ipswich	May 19
Sharp-shinned Hawk	Cambridge	Apr. 28	Franklin Park	Jan. 2
Cooper's Hawk	Middlesex Fells	May 7	Natick	Apr. 7
Red-tailed Hawk	Medford	Mar. 11	Natick	Apr. 7
Red-shouldered Hawk	Middlesex Fells	Feb. 25	Morton Marshes	Jan. 16
Broad-winged Hawk			Weston	Apr. 28
American Rough-legged Hawk	Middlesex Fells	Nov. 26		
Duck Hawk	Ipswich	Aug. 17		
Pigeon Hawk			Franklin Park	Oct. 14
American Sparrow Hawk	Medford	Feb. 23	Newton	Jan. 13
American Osprey	Medford	Apr. 28	West Tisbury	Aug. 30
Short-eared Owl	Ipswich	Oct. 30		
Screech Owl	Medford	Aug. 4	Jamaica Plain	Aug. 5
Yellow-billed Cuckoo	Middlesex Fells	May 18	Franklin Park	May 16
Black-billed Cuckoo	Medford	May 13	Belmont	May 11
Belted Kingfisher	Medford	Apr. 19	Franklin Park	Apr. 17
Hairy Woodpecker	Middlesex Fells	Feb. 25	Arnold Arboretum	Dec. 30
Downy Woodpecker	Medford	Jan. 1	Franklin Park	Feb. 18
Yellow-bellied Sapsucker	Greylock	June 16	Belmont	Sept. 28
Northern Flicker	Medford	Jan. 4	Franklin Park	Jan. 7
Whip-poor-will			West Tisbury	Aug. 15
Nighthawk	Medford	May 17	Boston	June 21
Chimney Swift	Medford	May 5	Franklin Park	May 4
Ruby-throated Hummingbird	Medford	June 3	Cambridge	Aug. 10
Kingbird	Medford	May 4	Dedham	May 5
Crested Flycatcher	Belmont	May 26	Belmont	May 11

Name of Species	List of Birds observed by Lidian E. Bridge, West Medford, Mass., from January 1, 1906, to Jan- uary 1, 1907.		List of Birds observed by James L. Peters, Jamaica Plain, from January 1, 1906, to January 1, 1907.	
	Locality	Date	Locality	Date
Phoebe	Medford	May 2	Franklin Park	Apr. 9
Olive-sided Flycatcher	Greylock	June 16		
Wood Pewee	Medford	May 13	Holden	May 12
Alder Flycatcher	Middlesex Fells	May 27		
Least Flycatcher	Medford	May 2	Dedham	May 5
Horned Lark	Nahant	Feb. 22	Ipswich	Oct. 20
Prairie Horned Lark	Ipswich	Aug. 17		
Blue Jay	Medford	Jan. 1	Jamaica Plain	Jan. 2
American Crow	Medford	Jan. 1	Franklin Park	Jan. 2
Bobolink	Concord	May 2	Franklin Park	May 8
Cowbird	Medford	Apr. 16	Franklin Park	Apr. 5
Red-winged Blackbird	Medford	Apr. 7	Morton Marshes	Feb. 25
Meadowlark	Medford	Apr. 5	Morton Marshes	Feb. 25
Orchard Oriole	Ipswich	May 19	Ipswich	May 19
Baltimore Oriole	Medford	May 12	West Roxbury	May 5
Rusty Blackbird	Cambridge	Mar. 17		
Bronzed Grackle	Medford	Apr. 12	Franklin Park	Mar. 6
Canadian Pine Grosbeak	Medford	Nov. 18	Arnold Arboretum	Nov. 11
Purple Finch	Medford	Apr. 17	Franklin Park	Apr. 8
American Crossbill	Greylock	June 18	Arnold Arboretum	Nov. 25
White-winged Crossbill	Middlesex Fells	Nov. 3	Jamaica Plain	Nov. 3
Redpoll	Middlesex Fells	Nov. 24	Arnold Arboretum	Nov. 25
American Goldfinch	Medford	Mar. 11	Franklin Park	Jan. 13
Pine Siskin	Middlesex Fells	Nov. 26	Franklin Park	Nov. 4
Snowflake	Medford	Mar. 17	Squantum	Feb. 24
Lapland Longspur	Ipswich	Oct. 30	Ipswich	Nov. 17
Vesper Sparrow	Medford	Apr. 17	Franklin Park	Apr. 13
Ipswich Sparrow	Ipswich	Oct. 30	Ipswich	Oct. 20
Savanna Sparrow	Medford	Apr. 16	Squantum	Apr. 14
Grasshopper Sparrow	Concord	May 14	West Tisbury	Aug. 30
Henslow's Sparrow			Norwood	June 16
Sharp-tailed Sparrow	Ipswich	May 19	Ipswich	May 19
White-crowned Sparrow	Medford	May 15		
White-throated Sparrow	Medford	Apr. 5	Franklin Park	Apr. 28
Tree Sparrow	Medford	Feb. 24	Morton Marshes	Jan. 14
Chipping Sparrow	Medford	Apr. 11	Franklin Park	Apr. 15
Field Sparrow	Medford	Apr. 17	Franklin Park	Apr. 14
Slate-colored Junco	Medford	Apr. 1	Franklin Park	Jan. 10
Song Sparrow	Medford	Mar. 7	Morton Marshes	Jan. 16
Lincoln's Sparrow	Medford	May 15		
Swamp Sparrow	Cambridge	Apr. 28	Morton Marshes	Apr. 13
Fox Sparrow	Medford	Mar. 21	Franklin Park	Mar. 28
Towhee	Medford	May 4	Weston	Apr. 28
Rose-breasted Grosbeak	Middlesex Fells	May 5	Franklin Park	May 7
Indigo Bunting	Medford	May 13	Franklin Park	May 13
Scarlet Tanager	Medford	May 13	Franklin Park	May 15
Purple Martin	Concord	June 11	Wayland	June 2
Cliff Swallow	Ipswich	May 19	Ipswich	May 19
Barn Swallow	Medford	Apr. 28	Franklin Park	Apr. 28
Tree Swallow	Medford	Apr. 12	Natick	Apr. 7
Bank Swallow	Concord	May 14	Ipswich	May 19
Cedar Waxwing	Medford	Mar. 30	Franklin Park	Feb. 18
Northern Shrike	Medford	Jan. 6	Morton Marshes	Jan. 21
Red-eyed Vireo	Middlesex Fells	May 6	Franklin Park	May 11

Name of Species	List of Birds observed by Lydian E. Bridge, West Medford, Mass., from January 1, 1906, to Jan- uary 1, 1907.		List of Birds observed by James L. Peters, Jamaica Plain, from January 1, 1906, to January 1, 1907.	
	Locality	Date	Locality	Date
Warbling Vireo	Medford . . .	May 10	Jamaica Plain . . .	May 6
Yellow-throated Vireo	Medford . . .	May 10	Franklin Park . . .	May 6
Blue-headed Vireo	Concord . . .	May 2		
White-eyed Vireo	Cohasset . . .	July 4	Braintree . . .	May 30
Black and White Warbler	Middlesex Fells . . .	May 4	Franklin Park . . .	Apr. 28
Golden-winged Warbler	Middlesex Fells . . .	May 6	Arnold Arboretum . . .	May 6
Nashville Warbler	Middlesex Fells . . .	May 6	Holden . . .	May 12
Northern Parula Warbler	Middlesex Fells . . .	May 6	Belmont . . .	May 11
Yellow Warbler	Medford . . .	May 4	Franklin Park . . .	May 2
Black-throated Blue Warbler	Medford . . .	May 13	Holden . . .	May 12
Myrtle Warbler	Medford . . .	Apr. 22	Franklin Park . . .	Apr. 10
Magnolia Warbler	Medford . . .	May 13	Franklin Park . . .	May 13
Chestnut-sided Warbler	Middlesex Fells . . .	May 6	Arnold Arboretum . . .	May 6
Bay-breasted Warbler	Medford . . .	May 20		
Black-poll Warbler	Middlesex Fells . . .	May 18	Franklin Park . . .	May 15
Blackburnian Warbler	Middlesex Fells . . .	May 18	Franklin Park . . .	May 21
Black-throated Green Warbler	Middlesex Fells . . .	May 6	Franklin Park . . .	May 2
Pine Warbler	Medford . . .	Apr. 15	Franklin Park . . .	Apr. 15
Yellow Palm Warbler	Medford . . .	Apr. 16	Franklin Park . . .	Apr. 14
Prairie Warbler	Arlington . . .	May 26	Hyde Park . . .	May 26
Ovenbird	Middlesex Fells . . .	May 8	Franklin Park . . .	May 5
Water-Thrush	Middlesex Fells . . .	May 13		
Mourning Warbler	Greylock . . .	June 18		
Northern Yellow-throat	Middlesex Fells . . .	May 11	Dedham . . .	May 5
Yellow-breasted Chat	Cohasset . . .	May 30	Braintree . . .	May 30
Wilson's Warbler	Middlesex Fells . . .	May 20	Franklin Park . . .	May 15
Canadian Warbler	Middlesex Fells . . .	May 20	Franklin Park . . .	May 19
American Redstart	Medford . . .	May 6	Belmont . . .	May 11
American Pipit	Ipswich . . .	Aug. 30	Nahant . . .	Oct. 6
Catbird	Medford . . .	May 5	Franklin Park . . .	May 2
Brown Thrasher	Middlesex Fells . . .	May 4	Morton Marshes . . .	Apr. 22
House Wren	Medford . . .	May 14	Belmont . . .	May 11
Winter Wren	Greylock . . .	June 18		
Short-billed Marsh Wren	Norwood . . .	July 14	South Sudbury . . .	May 26
Long-billed Marsh Wren	Cambridge . . .	June 5	Cambridge . . .	May 25
Brown Creeper	Middlesex Fells . . .	Feb. 25	Franklin Park . . .	Jan. 16
White-breasted Nuthatch	Middlesex Fells . . .	Feb. 25	Jamaica Plain . . .	Jan. 11
Red-breasted Nuthatch	Medford . . .	Sept. 24	Franklin Park . . .	Sept. 29
Chickadee	Medford . . .	Jan. 7	Franklin Park . . .	Jan. 2
Golden-crowned Kinglet	Medford . . .	Jan. 7	Franklin Park . . .	Jan. 2
Ruby-crowned Kinglet	Arlington . . .	Apr. 21	Jamaica Plain . . .	Apr. 17
Wood Thrush	Medford . . .	May 11	Arnold Arboretum . . .	May 6
Wilson's Thrush	Middlesex Fells . . .	May 7	Franklin Park . . .	May 23
Gray-cheeked Thrush	Medford . . .	Sept. 25		
Olive-backed Thrush	Concord . . .	May 14	Franklin Park . . .	May 24
Hermit Thrush	Middlesex Fells . . .	May 15	Squantum . . .	Apr. 14
American Robin	Medford . . .	Mar. 4	Arnold Arboretum . . .	Feb. 4
Bluebird	Medford . . .	Mar. 4	Milton . . .	Mar. 11
Ring-necked Pheasant			Franklin Park . . .	Jan. 2
Kumlein's Gull			Boston . . .	Feb. 3
Black Tern	Ipswich . . .	Aug. 30	West Tisbury . . .	Aug. 29
Purple Grackle			West Tisbury . . .	Aug. 15
Baird's Sandpiper	Ipswich . . .	Sept. 28		
Acadian Sharp-tailed Sparrow	Cohasset . . .	May 30		
Orange-crowned Warbler	Middlesex Fells . . .	Nov. 26		

The Migration of Thrushes

FOURTH PAPER

Compiled by Professor W. W. Cooke, Chiefly from Data
in the Biological Survey

With drawings by LOUIS AGASSIZ FUERTES and BRUCE HORSFALL

VARIED THRUSH

THE Varied Thrush, under which name both forms of this species are included, breeds from northwestern California, northern Idaho and northwestern Montana, north to Fort Franklin, Mackenzie, Fort Yukon, and the Kowak river, Alaska; winters from central Washington to southern California. Accidental in New Jersey, Long Island, Massachusetts, Kansas and Guadalupe Island, Lower California.

The spring migration begins so early that, on the average, migrants arrive in central Washington March 6 and southern British Columbia March 10. The valley of the Kowak river, Alaska, was reached May 21, 1899. The average date of arrival at Columbia Falls, Mont., is April 1, and the earliest date is March 2, 1895. Central California is deserted, on the average, April 2, and the latest date in southern California is April 12, 1899.

The species leaves its breeding grounds in northern Alaska about the first of September and usually arrives in central California, along the coast, November 7, the earliest date being September 27, 1898. It appears on the higher mountains of northern California about the first week in October.

SAINT LUCAS ROBIN

The Saint Lucas Robin is a resident species in the southern portion of Lower California. The only record for the United States is that of a specimen taken January 2, 1880, at Haywards, California.





THE BROWN PELICAN GROUP. ILLUSTRATING THE NESTING HABITS OF THIS SPECIES ON PELICAN ISLAND, FLORIDA

The New Bird Groups in the American Museum of Natural History

By FRANK M. CHAPMAN

FROM time to time during the past four years photographs of certain bird groups in the American Museum of Natural History have appeared in BIRD-LORE, but, beyond the caption with each cut, nothing has been said of the groups themselves or of the object of the series of which they form a part. This series will be known as 'The Habitat Groups of North American Birds.'

The novel features of these groups consist mainly in their painted backgrounds and in their method of installation, particularly with respect to lighting.

Briefly, it may be said that these groups are lighted from above by reflected natural, and, when necessary, artificial light. The source of light, therefore, whether by day or night, is always the same, and, in consequence, there is but one set of shadows, a matter of the first importance where an attempt is made to connect the actual foreground with the painted background.

In ground plan the groups are curved at the back and straight in front, from which point alone they can be seen. Only a part of the front is occupied by the glass through which the group is viewed, both the ends and the top of the group being beyond the range of vision from the normal viewpoint. This increases the panoramic illusion and adds greatly to the artistic effectiveness of the whole.

It is, however, not my object to speak of the method of construction of these groups, but rather of the idea which they are designed to embody. The more novel feature of this idea is to be found in the painted backgrounds which form a part of each group. Painted backgrounds for small groups or panels of mounted birds have long been employed by the taxidermist; but this, it is believed, is the first attempt to introduce backgrounds painted from nature and intended to reproduce a given scene as accurately as the groups they supplement do a limited portion of it. Such backgrounds have, therefore, not only a biologic or ecologic value, as they portray the nesting habitat of a species or illustrate colonial nesting habits on a scale which mere taxidermy alone would prohibit, but they have also a botanic, geographic and physiographic value. It is believed, therefore, that when the thirty-odd groups which have been planned for this series are completed, the Museum will have not alone adequate reproductions of the nesting habits and haunts of many American birds, but will have also a series of paintings representing, in a novel and attractive manner, characteristic American scenery. The series might indeed be called America and its Bird-Life.



CACTUS-DESERT BIRD-LIFE OF ARIZONA. BASED ON STUDIES MADE AT TUCSON, ARIZONA, IN MAY, 1906

The following groups have been completed: (1) Summer Bird-Life of Cobb's Island, Virginia*; (2) A Flamingo Colony in the Bahamas†; (3) Summer Bird-life of an Irrigated Section in the San Joaquin Valley at Los Baños, California‡; (4) Brandt's Cormorant, Monterey, California§; (5) Sandhill Crane, Kissimmee Prairies, Florida; (6) Anhinga, in a 'bonnet' (*Nuphar*) swamp, Brevard County, Florida; (7) Ward's Heron, Brevard County, Florida; (8) Brown Pelican and Pelican Island, Indian River, Florida; (9) Wild Turkey, Mountains of West Virginia; (10) Prairie Hen, Sandhills of Nebraska; (11) Golden Eagle, Bates' Hole, Wyoming; (12) Cactus Desert Bird-life, Tucson, Arizona. Others are approaching completion, and it is hoped to finish the series in 1908.

It should be added that the photographic reproductions here shown are so far from doing justice to the originals that they serve only to suggest the method of treatment, without conveying an idea of the remarkably successful manner in which artist and preparateur have overcome the technical difficulties encountered.

*Figured in BIRD-LORE, V, 1903, p. 108.

†Figured in BIRD-LORE, VII, 1905, p. 201.

‡Figured in BIRD-LORE, VII, 1905, p. 202.

§Figured in BIRD-LORE, VIII, 1906, p. 202.



SLATE-COLORED JUNCO AND YOUNG

Photographed by Thomas S. Roberts

Notes from Field and Study

Notes on the Starling

Unless the ornithologists are satisfied that Starlings are enormously valuable to the country economically, I predict that we are going to deplore the importation of these

them. They started in a second time, but Starlings had discovered the snug place and wanted it for themselves, so they were my allies until I had to watch out that both interlopers were forced to go elsewhere. In spite of this, and in spite of the fact that the Starlings had a hole of their own and had occupied it for some time, they harassed my poor Flickers into seeking a nest elsewhere. It certainly looked like mere wanton cruelty, for having gained their point, the Starlings took no more interest in that hole.

It is strange that these birds, so much in evidence throughout the rest of the year, become, when the trees are in leaf, so secretive that they are rarely seen. Occasionally, late in the summer, small flocks join the Red-winged Blackbirds feeding in the salt marshes; but, excepting between dawn and sunrise, one looks in the trees for them in vain. At this early hour they are invariably to be seen within a few yards of their nest, apparently having a good game of "hide-and-seek," and keeping up an incessant chatter. The trees are old and have many holes, and five or six Starlings play until a few minutes after sunrise, then disappear as if from the face of the earth. That the same thing goes on every morning in the vicinity of other Starlings' nests, and that their first



STARLING, WINTER PLUMAGE
Drawn by Bruce Horsfall

birds quite as much as we do that of the English Sparrow. I do not know that they raise more than one brood each year, but from their increase in numbers, they evidently have large families, and I am led to believe that they have singularly bad dispositions.

They have appropriated not only all the holes in the old apple trees, including those stolen from the Bluebirds by the English Sparrows, but also the holes in all the big lawn trees, hitherto occupied by Flickers, etc.

For three consecutive summers a pair of these latter birds nested in a hole in an elm tree, on a level with, and not more than ten feet from my bedroom window. Very early last year a pair of English Sparrows tried to build there, but I promptly ousted



STARLING, SUMMER PLUMAGE. Drawn by Bruce Horsfall

appearance mornings seems to be as they emerge from a hole, causes me to believe that the young, as well as the old, sleep in holes. I think, but cannot say with certainty, that the young, until each takes a mate, sleep in the hole in which they were hatched; for those that I watched played every morning about their birthplace long after they were fully grown. Possibly about the time of the fall migration they seek new quarters for themselves; but so secretive are they that it is almost impossible to study their habits through the summer months. Even before the young can fly, the parents are seen no more on the lawns with Robins and Grackles, but hunt for food where they cannot be seen.

In the fall, when not a leaf remains on the trees, Starlings are seen in their tops in small flocks of from three to eight or ten. It is at this time that one hears their loud, clear whistle of two notes,—a high one followed by one a trifle lower, the two somewhat slurred together. It is rather sweet and very easy to imitate; in fact, one can call them. This whistle and the result produced by the ludicrous straining at a song, and which is only a wheezy creaking heard all through the spring, constitute the Starling's own singing; but, "to give the devil his due," he is an excellent mimic; he can copy many notes of the Catbird; he gives the Wood Pewee's call so perfectly that the season is the Pewee's only alibi. One day I was so sure that I heard a Downy Woodpecker hammering over my head that I strained my neck searching for him; then, to my astonishment, discovered a Starling producing this noise from his throat.

In proof of my statement that these birds have bad dispositions, I may say that I have seen them annoy many different kinds of birds, and I must tell of one incident that occurred very early one morning only last week. A Flicker was calling so loudly and persistently that I was awakened. Thinking it must be close at hand, I went to the window and saw a male bird in the old hole in the elm I have already spoken of. The female, although quite near, was too timid to join him, evidently because of a pair of restless Star-

lings just overhead. I was too sleepy to watch any longer, so settled myself for another nap, and, almost at the same moment, heard both Flickers "talking" softly together at the hole. It could not have been more than five or ten minutes later when I heard a bird cry very much like the quavering cry of the Screech Owl, only softer. I jumped to the window and saw the body of a Flicker half-way out of the hole, its head twisted so far back and downward as to be invisible. The contortions it made struggling to get away were pitiful, and this pathetic cry wrung my heart, but it got away, and almost at once was followed by a Starling, who gave a satisfied grunt as he came to the edge of the hole, then flew to a branch above, where he began his torturing efforts at singing.—MRS. PAUL R. BONNER, *Stamford, Conn.*

A Call for Notes on the Starling

Seventeen years have passed since the Starling was first successfully introduced into this country, and Mrs. Bonner's estimate of the bird suggests calling for information in regard to the distribution of this recent addition to our avifauna, as well as for an expression of opinion in regard to its desirability. Introduced into Central Park, New York City, in March, 1890, the Starling has now spread eastward nearly if not quite to New London, Conn., northward to Newburgh and Poughkeepsie, and southward at least to Princeton, N. J. As a contribution to the history of this bird in America, it will be well to place on record now replies to the questions which appear below:

1. When did the Starling first appear in your vicinity?
2. What is its status now?
3. Do you consider it a desirable addition to our avifauna?
4. If undesirable, give reasons why.
5. Do you know of any Starlings, other than those released in Central Park, which have been introduced into this country?
6. Was the introduction successful?

The Editor will welcome replies to one

or all of these questions. They may be sent to him at the American Museum of Natural History, New York City, not later than September 1, for insertion in the next issue of BIRD-LORE.—FRANK M. CHAPMAN.

A Winter Flight of Vesper Sparrows

The following account, relating to a mid-winter flight of Vesper Sparrows in the vicinity of New York City, appears to constitute an unprecedented record. The presence of this species here first came to my notice on February 12, 1907. During the forenoon of that day I observed many individuals of the species in the grassy fields and stubble growth north of Merrick, Long Island; and from this locality southward to the salt meadows and westward along the Merrick Road, I found Vesper Sparrows in comparative abundance. The birds were sometimes seen singly or in groups of two or three, but were more commonly found associating with Juncos and Tree Sparrows. All three species were industriously feeding among the roadside weeds, in a temperature which stood near the zero point.

Within the limits of Freeport, L. I., just north of the center of the village, many Vesper Sparrows were seen feeding between the rails of the electric-car tracks from which the snow had been entirely cleared, and, as I followed the tracks toward Hempstead and Garden City, one bird after another flew up from before me, only to alight again some distance ahead. After being repeatedly flushed, the birds would fly into a near-by bush or tree, and allow me to pass before resuming their quest for food. They were, without exception, exceedingly tame, and usually permitted a close approach before flying and expanding their white-edged tails. North of Freeport, one of the birds was secured for the Museum, thus making identification positive.

On February 17, a careful search in the vicinity of Jamaica, Long Island, failed to disclose a single Vesper Sparrow, and none was seen by members of the Museum staff, who spent several days on the south shore of Long Island during the latter part of February and the first week in March.

Several hunts made since that time have yielded no better results; the conclusion, therefore, is that the flight must have been either very local or of short duration, probably the latter.

Although Giraud, in his 'Birds of Long Island,' says of the Vesper Sparrows, "A few remain with us throughout the year," recent records for dates later than the middle of November are not common, and, moreover, the above statement would hardly account for such numbers of the birds as were seen by the writer. With the exception of Giraud's account, the northernmost recorded winter range of the species is in southern Pennsylvania, where, according to Warren, the birds are frequently seen in winter. In Rhoad's and Pennock's list of the 'Birds of Delaware,' the Vesper Sparrow is given only as a summer resident.

The fact that the Vesper Sparrows were with us during the coldest period of the winter would appear to preclude the supposition that they were early migrants from the South, and yet no other theory seems probable. Field notes from all sections of the country around New York City might aid greatly in determining the direction of the flight, so it is to be hoped that other observers will be heard from.—ROBERT C. MURPHY, *American Museum of Natural History, New York City.*

An Owl Tragedy

Early in April, 1906, I made my first trip of the season to the home of a pair of Barred Owls which I had been in the habit of visiting each spring for several years. The Owls nested in the hollow top of a dead pin-oak stub about thirty feet from the ground. The hole was open and unsheltered at the top, and its floor was about two feet below the entrance.

Upon reaching the familiar tree, I rapped upon the trunk, expecting to see the big Owl fly out as usual. Nothing happened, however, so I climbed to the nest. As I neared it the clicking of an Owl's bill reached my ear. Upon looking into the hole, I was taken aback to see it closed by a heavy cake of ice a few inches below the top, and it did

not take long to guess what had happened. Two or three days before there had been a snow-storm, and the old Owl, keeping her eggs warm, had been covered by the falling snow. The sleet and subsequent cold had converted this into ice, which had frozen so closely around several projections on the walls of the hole as to resist all the Owl's attempt to break through.

In the center of the ice-cake was an opening little more than an inch square, and through this hole I could see the Owl. Her head was pressed against the center of the disk of ice, and this had resulted in melting the hole through the thinnest part. It took but a few minutes to break and remove the ice, but it is no wonder that the Owl had been unable to do so, as it was from three to four inches thick around the edge.

The poor bird presented a most pitiable appearance, her bedraggled feathers hanging in wet, stringy masses, with lumps of ice adhering to parts of the plumage. I pulled her from the hole, for she was so stiff and weak as to be unable to fly. I succeeded in greatly improving at least her appearance by drying and smoothing her plumage, and left her sitting in an apparently dazed condition in a cedar tree not far from the nest.

Before I left, her mate was observed flying about among the large oaks near by, but he did not go to the nest. Whether the Owl recovered or not I do not know, but this year (1907) the old hole was found to be unoccupied when I paid it my annual visit.

It may be well to add that in her struggles to escape the imprisoned Owl had broken her eggs into small fragments. Also that a feather on the ice-cake showed that her mate had visited the nest while she was entombed within. — W. DEW. MILLER, *Plainfield, N. J.*

Prairie Horned Larks in Connecticut

Prairie Horned Larks breed in Berkshire County, Mass., and in the northern New England states, but I can find no record of their occurrence in Connecticut, except during migrations.

While spending my vacation at Washington, Conn., in the summer of 1906, from

the middle of July to the end of August, I saw almost daily a flock of between twenty and twenty-five of these birds on a side-hill pasture lot not far from the house.

They fed on the ground, and, when startled, flew to the top of a stone wall or into a tree; unless further disturbed, they immediately returned to the ground to continue feeding. If suddenly startled, the flock would rise and fly to a distant part of the field, uttering on the wing a note that sounded like *tzee-a-wee, tzee-a-wee*.

I believe that the Larks nested here this year (1906). Only four or five were in adult plumage, the rest having the plumage of the immature bird. As some were here all summer, there can be no chance that they bred elsewhere and then wandered here. Likewise I was told of a nest that had been found, which corresponded with a description of the Lark's nest and eggs, although the person at the time did not know what the birds were.—[Will the writer of this note kindly send his or her name for publication?—ED.]

Red-breasted Nuthatches and Pine-Finches on Staten Island, N. Y.

In BIRD-LORE for December, 1906, Mr. Dutcher described a remarkable migration of Red-breasted Nuthatches over Fire Island Beach, N. Y. While no such flight was noticed on Staten Island, still these birds were unusually abundant throughout the fall of 1906, the first being seen about September 1, and the last remaining till late in the autumn.

Pine-Finches, too, were present in for large numbers during the winter of 1906-7 than in the two preceding. They were most numerous on the beach on the south side of the island, where they fed on the ground and in the goldenrods.

Singularly enough, both birds were also common on Staten Island during the season of 1903-4, when the Nuthatches were observed from September till November, and a few the following spring, and the Pine-Finches were even more numerous in the central part of the island than during the past winter.—JAMES CHAPIN, *New Brighton, Staten Island, N. Y.*

Book News and Reviews

PROCEEDINGS OF THE FOURTH INTERNATIONAL ORNITHOLOGICAL CONGRESS. London, June 1, 1905. Edited under the direction of the president, R. Bowdler Sharpe, LL.D., by the secretaries: Ernst J. O. Hartert, Ph.D., and J. Lewis Bonhote, M.A. London; Dulau & Co., 37 Soho Square, W. February, 1907. 8 vo. 696 pages, 18 plates.

This well-edited volume contains not alone the papers presented before the Fourth International Ornithological Congress, but also an excellent history of the Congress itself, with lists of officers, committees and members, and detailed reports of the proceedings of the various sections into which the Congress was divided. It is manifestly impossible to review here in detail the contents of the nearly seven hundred pages forming this volume, and, merely as a matter of information, we give the titles of those papers of interest to BIRD-LORE'S readers. (2) 'President's Address' (A History of the British Museum's collection of Birds), Bowdler Sharpe; (3) 'What Constitutes a Museum Collection of Birds?' 6 plates, Frank M. Chapman; (5) 'On the Migration of Birds,' Otto Herman; (9) 'On Extinct and Vanishing Birds,' 2 plates, Walter Rothschild; (11) 'On Some Antarctic Birds,' Edw. A. Wilson; (12) 'Some Notes on the Hybridizing of Ducks,' 4 plates, J. Lewis Bonhote; (13) 'The Principal Aims of Modern Ornithology,' Ernst Hartert; (14) 'Some Ornithological Results of the Scottish National Antarctic Expedition,' W. S. Bruce; (16) 'Monographie de la Sterne de Dougall,' 1 plate, Louis Bureau; (20) 'On the Origin of the Differences Between Nestling Birds,' W. P. Pycraft; (24) 'Sequence in Moults and Plumages,' Jonathan Dwight, Jr.; (27) 'The Unusual Migration of Brännich's in Eastern North America,' 1 plate, J. H. Fleming; (30) 'On Colour Variation in the Eggs of Palearctic Birds,' F. C. R. Jourdain; (31) 'The Wild Birds Protection Act,' Sir Digby Pigott; (32) 'Bird Legislation in Australia,' Sir John Cockburn; (33) 'The Rationale of Bird Protec-

tion,' Frank E. Lemon; (34) 'The Food of Birds,' Otto Herman; (35) 'Ornithologie Economique,' A Quinet; (37) 'The Sparrow: Is it Useful or Harmful to Agriculture?' Igali Svetozár; (40) 'The Importance of Aviculture as an Aid in the Study of Ornithology,' D. Seth-Smith. — F. M. C.

THE PASSENGER PIGEON. By W. B. MERSHON. New York: The Outing Publishing Company, 1907. 8vo. xii + 225 pages. 9 plates, 2 in color.

Mr. Mershon is to be thanked for bringing between two covers the more important literature relating to the Passenger Pigeon, and adding thereto his own recollections of this lost species, together with much interesting data from various sources. Thus we have the biographies written by Wilson, Audubon and Bendire; Fennimore Cooper's graphic description of a Pigeon flight from 'The Pioneers,' with more or less extended quotations from later writers.

No part of the original contributed matter appears to be of greater value than that furnished by Mr. Henry T. Phillips, of Detroit, who from 1864 to 1878 marketed Passenger Pigeons either dead or alive. From a single nesting in Oceana county, Michigan, in 1874, Mr. Philips states 100 barrels of dead birds were sold daily for thirty days and, in addition, 175,000 live birds were shipped. He writes that in this same year there were over 600 professional netters, we assume in Michigan, and adds that "when the Pigeons nested north every man and woman was either a catcher or picker." And still people marvel at the Pigeon's extinction, and seek to account for its disappearance through the action of some catastrophe which destroyed nearly all the existing birds. Need we look for a greater catastrophe than that supplied by man himself? We are glad to observe that Mr. Mershon places no belief in this alleged cause of the Pigeon's disappearance, but finds in their persecution by man a sufficient explanation of their decrease. A colored plate of the Passenger Pigeon by Fuertes

and one of the Band-tailed Pigeon by Allan Brooks add to the attractiveness and value of this volume.—F. M. C.

THE PROTECTION OF OUR NATIVE BIRDS. By THOS. H. MONTGOMERY, JR., Professor of Zoölogy, University of Texas. Bulletin, University of Texas, No. 79, 1906. 8vo. 30 pages.

Professor Montgomery discusses the subject of bird protection under three heads: (a) "Reasons for Protection," (b) "Data on the Destruction of Birds," and (c) "Means of Protection of Birds."

He has long been interested in a study of the food of birds, and the information acquired by personal investigation, as well as that obtained from the published works of others, has convinced him of the value of birds to our agricultural interests.

The question is handled in a scientific, logical manner, which increases the force of the arguments employed, and we trust that the publication of this paper in a state particularly in need of the services of insect-destroyers will help to bring its inhabitants to a realization of their indebtedness to birds.—F. M. C.

THE BIRDS OF THE CHICAGO AREA. By FRANK MORLEY WOODRUFF. Bulletin VI of the Natural History Survey, Chicago Academy of Sciences, April 15, 1907. 221 pages, 12 full-page half-tones.

In an introduction of twenty-four pages, Mr. Woodruff states the sources of information on which this list is based, outlines the territory embraced with its more significant climatic conditions, calls attention to localities of special interest, describes conditions unfavorable to birds, speaks of those extra-limited species which have occurred and those which may be expected to occur, and has a word to say about migration from a local standpoint.

For the excellent reason that a local list is not the place in which to exploit the latest scheme in classification, the A. O. U. check-list is followed.

Pages 25 to 195 are devoted to the treatment of the birds which have been reported from the area covered. This is stated to include all of Cook and Du Page counties,

the nine north townships of Will county and the northern portion of Lake county, Indiana." The species are not numbered, nor does there appear to be a synoptic table of their manner of occurrence from which we could readily obtain an impression of the character of the ornithology of the area under consideration.

The annotations include a statement of the local status and general distribution of each species, the less common species being treated with a detail which should make this paper of great value to local students. An extended bibliography should help to rescue from oblivion much matter in regard to Chicago birds which has been published in the daily press. It is interesting to observe that, although E. W. Nelson appears here as the author of only two papers relating to the birds of the Chicago area, he is more frequently quoted than any other author.—F. M. C.

JOURNAL MAINE ORNITHOLOGICAL SOCIETY.—The leading article in the December, 1906, number is on 'Bicknell's Thrush on Mt. Abraham,' by D. W. Sweet, describing the occurrence of the species in Maine during the breeding season. W. H. Brownson contributes some notes on 'Portland Birds' observed in 1906 and J. M. Swain furnishes 'Contributions to the Life History of the Pine Warbler.' Migration tables and numerous local notes make up the number.

In the March, 1907, number, O. W. Knight contributes to the Life History of the Yellow Warbler and A. H. Norton discusses the occurrence of the Jerfalcons, Lapland Longspur, Sharp-shinned and Pigeon Hawk in Maine in winter. There is also the report of the Eleventh Annual Meeting and numerous Christmas Bird Censuses and Local Notes.—W. S.

THE publication of the first number of 'British Birds,' an illustrated monthly magazine devoted to the birds on the British list, is announced for June 1. The editor will be Mr. H. F. Witherby, assisted by W. P. Pycraft. The annual subscription of 10 s. 6d. may be sent to Witherby & Co., 326 High Holborn, London.

The Audubon Societies

SCHOOL DEPARTMENT

Edited by MABEL OSGOOD WRIGHT

Address all communications to the Editor of the School Department, National Association of Audubon Societies, 141 Broadway, New York City

AUGUST AND THE FLOCKING TIME

The nesting season is practically over at middle July, and dingy, faded feathers are everywhere seen as the forerunners of the August time of silence and withdrawal to seclusion for the summer molting. There are but three birds that can be counted on for August music—the Red-eyed Vireo, the Song-sparrow and the Indigo Bunting.

The novice cannot hope to identify new birds at this time of changing and mixed plumage, and it is no easy task to follow some of the most familiar species through the change and still be able to name them. The clearly marked black, white and buff male Bobolink of June meadows, now wears the brown stripes of his mate. After molting, the Scarlet Tanager is feathered in olive-green, his wings and tail remaining black; the autumn Goldfinch changes his bright gamboge coat for olive-gray, though his wings are as in summer.

The birds of more sober plumage remain much the same, though the markings seem less distinct. The brick-red spring breast of the male Robin has faded to a yellowish hue, while the immature plumage of the young birds of the season make the work of naming very difficult for the amateur. In May and June, identification, learning the various call-notes and songs, and watching the various processes of rearing the young, fill the hours to overflowing, so that one day lapses to another, and midsummer comes all too soon. The nesting season shows the personal and individual side of bird-life, while, with late summer and early autumn, the impersonal or gregarious phase begins. This gathering of the clans, as it might be called, under the autumn spell, or flocking impulse, is very interesting to watch, and is in itself a study.

The smaller birds travel in more or less mixed companions, and as early as the first week in August, flocks of various Warblers arrive from the North and remain for a month or more, according to the season, feeding in the tree-tops. The first of our own summer residents to leave are the Orchard and Baltimore Orioles, the Purple Martin, Yellow Warbler and the Yellow-breasted Chat; and, though they do not finally disappear before the middle of September, their migratory activity begins the last of August, as soon as the molt is over and they have gained fresh strength of wing with the new pinions.

There are two classes of birds whose flocking is of special moment, and, when we see them assemble, we know that summer is over, no matter how green the trees or fresh the herbage,—these are the Blackbirds, including Grackles, Redwings and Cowbirds, and the Swallows.

The Purple Grackle makes himself ludicrous in April and May by taking a conspicuous position in a tree-top, and standing on tip-toe, with extended wings, going through a series of ludicrous contortions and gasps and squeaks that he evidently considers highly dramatic love-making. But, when they have at last settled down to domestic life, they become almost as furtive as the Crows in their comings and goings, and we forget them.

Comes a day in late August and there is a noise in the open between garden and orchard like the rustling of fallen leaves under the tread of many feet, mingled with strange creakings as if the doors of autumn were turning on rusty hinges, and there far and wide, walking through the stubby grass or cloaking the bushes and trees upon which they perch in sable, are the Grackles.

At a signal from the leader, they will rise and drift away like a storm-cloud; but tomorrow they will return, and the next day, and the next, staying with us until Thanksgiving, and many injurious insects will they glean from the land plowed for fall sowing. The Grackle flocks haunt stubble-fields and wood edges, while the Cowbird flocks keep to the open pasture, and the Redwings claim the marsh-lands.

The flocking manœuvres of Barn and Bank Swallows are interesting in the extreme, and worthy of patient observation, for there are many things not yet understood. It seems to me that they engage in flying drills, with distinct right- and left-wheels, and various other tactics.

Whether this practice is merely for the pleasure of motion, or whether it is to accustom the young of the year to the fatigue of travel, who can say? But one thing is a fact, that while both Bank and Barn Swallows flock in the middle or late August, they keep up this flying practice for a full month, during which period they may be seen in vast numbers resting on the telegraph wires by the wayside, or on the fence-rails of wide-open commons along the shore.

One day we think that they have swept off for good, but the next sees them back at their posts, and a Barn Swallow flock has often remained in this latitude until the first week of October. Then, when other flocks fail, except in the absolute breeding season, we have the Crow always with us; and mendicant, thief, or whatever else we choose to call him, the watching of a flock of Crows, from August, when the corn is in the milk, until the next mating season is a sufficiently interesting proposition for any bird student.—M. O. W.

THE INDIGO BUNTING

By MABEL OSGOOD WRIGHT

The National Association of Audubon Societies

EDUCATIONAL LEAFLET NO. 27

Rich color is the chief attribute that sets the Indigo Bunting apart from its kin of the tribe of Sparrows and Finches.

Blue that is decided in tone, and not a bluish gray, is one of the rarest hues among the birds of temperate zones; for one may count the really blue birds of the eastern United States upon the fingers of one hand.

This Bunting belongs to the tree-loving and tree-nesting
His Family part of his tribe, in company with the Grosbeaks and the brilliant yellow American Goldfinch, whose black cap, wings and tail feathers only enhance his beauty. The Sparrows, of sober stripes, nest on or near the ground, and their plumage blends with brown grass, twigs, and the general earth coloring, illustrating very directly the theory of color-protection, while the birds of brilliant plumage invariably keep more closely to the trees.

In size, the Indigo Bunting ranks with the small Sparrows, coming in grade between the Field- and Song-Sparrows, and being only slightly larger than the Chippie. The female wears a modification of the Sparrow garb, the upper parts being ashy brown without stripes, the under parts grayish white washed and very faintly streaked with dull brown, the wings and tail feathers having some darker edges and markings.

When it comes to painting the plumage of the male in words, the task becomes difficult; for to use simply the term indigo-blue is as inadequate as to say that a bit of water that looks blue while in shadow is of the same color when it ripples out into full sunlight, and catches a dozen reflections from foliage and sky. A merely technical description would read: Front of head and chin rich indigo-blue, growing lighter and greener on back and underparts; wings dusky brown, with blue edges to coverts; tail feathers also blue-edged; bill and feet dark; general shape rounded and canary-like, resembling the Goldfinch.

The last of May, one of these Buntings came to a low bush, outside my window, and, after resting awhile, for the night before had been stormy, dropped to the closely cut turf to feed upon the crumbs left where the hounds had been munching their biscuits. I have never seen a more beautiful specimen, and the contrast with the vivid green grass seemed to develop the color of malachite that ran along one edge of the feathers, shifting as the bird moved like the sheen of changeable silk.

In vain did I search among contemporary writers for a description of this phenomenon, which appears only in the plumage of the fully developed male of two or more years of age. Finally, I chanced, in searching Alexander Wilson's American Ornithology for a different matter, to find the only adequate pen-picture of this bird that I know. Of its plumage he says: "There is one singularity, viz., that in some lights, his plumage appears of a rich sky-blue, and in others of a vivid verdigris green; so that the same bird, in passing from one place to another before your eyes, seems to undergo a total change of color. When the angle of incidence of the rays of light reflected from his plumage is acute, the color is green; when obtuse, blue. Such, I think, I have observed to be uniformly the case, without being optician enough to explain why it is so. From this, however, must be excepted the color of the head, which is not affected by the change of position."

The nest, in no wise typical, is a loose and rather careless structure of grass, twigs, horse-hairs, roots or bits of bark placed in a low, scrubby tree or bush at no great distance from the ground, and the eggs are a very pale blue or bluish white, and only three or four in number.

Being a seed-eater, it is undoubtedly this Bunting's love of warmth that gives him so short a season with us: for he does not come to the New England states until the first week in May, and, after the August molt, when he dons the sober clothing of his mate, he begins to work southward by middle of September,—those from the most northerly portions of the breeding range, which extends northward to Minnesota and Nova Scotia, having passed by the tenth of October. It winters in Central America and southward.

Although of the insect-eating fraternity of the conical beak, the Indigo Bunting consumes many noxious insects in the nesting season, when the rapid growth of the young demands animal food, no matter to what race they belong. Being an inhabitant of the overgrown edges of old pastures, or the brushy fences of clearings and pent-roads, he is in a position where he can do a great deal of good. Mr. Forbush, in his valuable book on Useful Birds and Their Protection, credits the Indigo Bunting with being a consumer of the larvæ of the mischievous brown-tail moth; but, whatever service it may do as an insect destroyer, its service the year through as a consumer of weed seeds, in common with the rest of its tribe, is beyond dispute.

The voice of the Indigo Bunting is pretty rather than impressive, and varies much in individuals. It consists of a series of hurried canary-like notes repeated constantly and rising in key, but, to my mind, never reaching the dignity of being called an impressive song. Yet on this point opinions differ, and Wilson calls it "a vigorous and pretty good songster. It mounts to the highest top of a tree,

and chants for half an hour at a time. Its song is not one continuous strain, but a repetition of short notes, commencing loud and rapid and falling by almost imperceptible gradations, for six or eight seconds, until they seem hardly articulate, as if the little minstrel were quite exhausted; and, after a pause of half a minute or less, commences as before." Then, too, the Indigo bird sings with as much animation in the month of July as in the month of May, and not infrequently continues his song until the last of August."

Nuttall writes that though usually shy the Indigo bird during the nesting season is more frequently seen near habitations than in remote thickets: "Their favorite resort is the garden, where, from the topmost branch of some tall tree that commands the whole wide landscape, the male regularly pours out his lively chant, and continues it for a considerable length of time. Nor is this song confined to the cool and animating dawn of morning, but it is renewed and still more vigorous during the noon-day heat of summer. This lively strain is composed of a repetition of short notes, which, commencing loud and rapid, and then slowly falling, descend almost to a whisper, succeeded by a silence of almost half a minute, when the song is again continued as before.

"In the village of Cambridge (Mass.), I have seen one of these azure, almost celestial musicians, regularly chant to the inmates of a tall dwelling-house from the summit of the chimney or the tall fork of the lightning-rod. I have also heard a Canary, within hearing, repeat and imitate the low lisping trill of the Indigo bird, whose warble indeed often resembles that of this species."

This combination of musical ability, lovely plumage and its seed-eating qualities long since has made the Indigo Bunting in danger of extermination, through the fact of its being universally, throughout the South, captured and sold as a cage-bird, both for home use and for export. In that section the bird is called "blue pop," a corruption of "bleu pape," or "pope," of the French. Thomas Nuttall and Alexander Wilson, both writing in the early years of 1800, speak of the Indigo Bunting as one of the most familiar of cage birds. Not only has this traffic existed since the days of Wilson, but, until a very few years ago, when the Audubon movement began to be a power, this Bunting, together with its cousin, the beautiful Painted Bunting, or Nonpareil, the Cardinal Grosbeak and the Mocking-bird were listed and sold, as a matter of course, by every bird-dealer in the country.

Oh, the untold misery and waste of this caging and selling of free-born birds! It is only one grade less direct a slaughter than killing them to trim a bonnet. While the sufferings of the bonnet-bird have ended, with it life those of the caged bird have only begun as the door closes behind him.

A few exceptional cases, where birds in the care of those who are both able and willing to make their surroundings endurable, count as nothing against the general condemnation of the practice of caging birds born wild.

Those of us who have known, by experience in caring for wounded or sick birds, exactly what incessant watchfulness is necessary to keep them alive, realize how impossible it is that this care should be given them by the average purchaser.

Birds born and reared in captivity, like the Canary, are the only ones that real humanity should keep behind bars. There is no more condemnable habit than allowing children to take nestlings of any kind, and try to feed and rear them; if disaster overtakes the parents, a responsible adult should be the one to endeavor to succor the brood.

Nominally, the traffic in caged wild birds has ceased; actually, it has not; nor will it until every bird-lover feels himself responsible for staying the hand that would rob the nest, whether it is that of the ignorant little pickaninny of the South, who climbs up the vine outside the window where you are wintering, and sees in the four young Mockers in the nest just under the sill a prospective dollar, the child at home, who likes to experiment for a few days with pets and then forgets them, or the wily dealer, who sells *sub rosa* what he dares not exhibit. No quarter to any class who make prisoners of the wild, outside of the Zoölogical Gardens or private aviaries where the proper conditions exist.

Any free citizen prefers death to loss of liberty, and even the literalists will, at least, allow this human quality to Citizen Bird, while it proves that he or she who either cages or buys the captive wholly to lack the spiritual quality.

Should we make prisoners of

“The ballad-singers and the Troubadours,
The street musicians of the heavenly city,
The birds, who makes sweet music for us all
In our dark hours, as David did for Saul.”?

—H. W. LONGFELLOW.

Questions for Teachers and Students

When does the Indigo bird come in Spring? How far north does it travel? How is its color different from the blue of the Jay and Bluebird? Is the caging of wild birds ever right? Why was the Indigo bird popular as a pet?

The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by WILLIAM DUTCHER

Address all correspondence, and send all remittances for dues and contributions, to the National Association of Audubon Societies, 141 Broadway, New York City

Membership in the National Association

\$5.00 paid annually constitutes a person a Sustaining Member
 \$100.00 paid at one time constitutes a Life Membership
 \$1,000.00 paid constitutes a person a Patron
 \$5,000.00 paid constitutes a person a Founder
 \$25,000.00 paid constitutes a person a Benefactor

FORM OF BEQUEST

I do hereby give and bequeath to THE NATIONAL ASSOCIATION OF AUDUBON SOCIETIES FOR THE PROTECTION OF WILD BIRDS AND ANIMALS (Incorporated), of the City of New York.

"I go to prove my soul!

I see my way as birds their trackless way;
 I shall arrive: what time, what circuit first
 I ask not; but, unless God send His hail
 Or blinding fire balls, sleet or stifling snow,
 In some time, His good time, I shall arrive;
 He guides me and the birds. In His good time."

The bird and animal lovers will arrive at the goal of their hopes, "In His good time," but the way to mortal eyes seems dim and undefined very often and is beset by many an obstacle placed by indifference, or, what is far worse, selfishness and greed. The altruistic has not been reached, by any means, although bright gleams of sunshine often cheer our way. When public officials take the time from their busy lives to pen such sympathetic words as the following, which came from Governor Davidson, of Wisconsin, it shows that "He guides." "I assure you our Audubon Societies will ever find me ready to lend any assistance in my power to protect the wild birds and animals of our country." Doubtless there are many other men who occupy positions of public trust who have the same feeling at heart but,

unfortunately, they do not take the time to express it, and thus the influence of a word from them is lost. Another gleam of sunshine from a well-known public man, James Lane Allen, whose pen gives pleasure to so many, will serve as a guide to others who probably have the same sympathy at heart but have not yet expressed it in a like practical manner:

"I am today in receipt of your letter of 18th of June, requesting me to become a sustaining member of the Audubon Societies. It gives me pleasure to do so, and my cheque in payment of the annual dues shall be found herein enclosed.

"I should have become a member long ago, if I had been asked—since the aims of the Association appeal to me very strongly."

Members and readers, please recollect that the work of the Association is expanding daily and that our great need is a largely increased membership and a greater endowment in order to carry on the work to which we have placed our hands; that is, to protect and conserve the wild birds of the country, Nature's own check on the undue increase of insect pests. Do you know the annual loss occasioned by destructive insects in the United States? If not, the following will give you some facts which surely will be of interest to you.

Product	Value	Percentage of loss	Amount of loss
Cereals	\$2,000,000,000	10	\$200,000,000
Hay	530,000,000	10	53,000,000
Cotton	600,000,000	10	60,000,000
Tobacco	53,000,000	10	5,300,000
Truck crops	265,000,000	20	53,000,000
Sugars	50,000,000	10	5,000,000
Fruits	135,000,000	20	27,000,000
Farm forests	110,000,000	10	11,000,000
Miscellaneous crops	58,000,000	10	5,800,000
Animal products	1,750,000,000	10	175,000,000
Total	\$5,551,000,000		\$595,100,000
Natural forests and forest products			\$100,000,000
Products in storage			100,000,000
Grand total			\$795,100,000

The above table was prepared by Prof. C. L. Marlatt, Assistant Entomologist, United States Department of Agriculture, and was published in the "Year Book," 1904. Professor Marlatt says, "In no country in the world do insects impose a heavier tax on farm products than in the United States. The lessening or prevention of this loss is the problem for the economic entomologist to solve." The members of the National Association are doing their part to solve the problem. Every wild bird that is saved is an additional natural check. Reader! Have you among your possessions a tree or bit of land that you cherish and love? Then encourage the wild birds to dwell with you; be an example to your neighbor, and also help the Association to spread its propaganda everywhere.

"In some time, His good time, I shall arrive."—W. D.

The Audubon Club in the Bahamas

Perhaps nowhere in the world are birds more needed than in Nassau, New Providence. Ants infest the gardens, borers riddle the trunks of the most useful trees—in short, nothing but the lynx-eyed, hungry bird is able to cope with and check the ubiquitous West Indian creeper and crawler. And yet, strangely enough, birds are scarce throughout this beautiful island. Tourists, enamored with Florida's glorious song-birds, complain of this defect in our favorite winter resort, which, climatically, is unequaled. Various causes are assigned to the phenomenon, as the absence of running streams, etc. But the main cause is this: the native children are incessantly catching and killing the lovely bright-plumaged native birds. Sapodilla-gum, traps—all possible devices are utilized to this unspeakable end.

Convinced by long observation that, once the value of the bird, and the joy of cultivating his acquaintance in the tree, could be brought home to these children, the problem of bird protection would be solved, I began in the winter of 1906 distributing Audubon Bulletins, with short informal talks; the response was a surprise. A num-

ber of young colored men formed themselves into a police-corps for the protection of the birds. Now any boy detected with a bird tied by the leg to cap or buttonhole, with a bit of string, is promptly seized, and, if necessary to the release of the victim, is thrashed, and the frightened, often injured, bird is after some careful nursing set at liberty. In short, so much interest has developed that three Bird Clubs are now regularly organized. One, the "Nassau Audubon," has a membership of intensely interested little white girls. Another, the "De Lancey-Town Audubon," is made up of young colored men and is doing a splendid work. The third is a club of eighty school children of Nicoll's Town, Andros Island. These children have made a marvelously practical move by planting guinea corn for the birds around the school yard. A fourth club is now forming under the leadership of another Andros Island boy in the settlement of Fresh Creek. Herbert, who visits Nassau from time to time in his father's boat, loaded with kindling-wood, strayed into my cottage; to my questions whether birds were abundant in Fresh Creek, and whether he clubbed and trapped them, he laughed and answered "Yes'm." A set of Bird Bulletins to read and carry to his school-teacher with the usual "talk" persuaded Herbert that there was a lot more in the bird than he had ever dreamed of. A month later, a letter came from Herbert, brought direct to the cottage by a brother, because he had "done forgot how to spell your name." He wrote that he had "got into many a strife" and been taunted with indulgence in "fool talk" through his advocacy of the cause of the birds. He ended with "I am getting on fine with the birds. O, I love them and all what you say is true." Two months later, the day before we sailed, he again appeared on the porch. He was overjoyed to find on our table a package of magazines and newspapers addressed to him, and which we were just about mailing. On May 23, he, with other faithful friends, carried our many bags and baskets aboard the tug "Colonia," said "good-bye," and went back to his isolated island home cheered and enheartened by

"love for the bird." Outside the harbor, where we boarded the "*Vigilancia*" four members of the young men's club bade us "God speed," with a cheery promise "*to look after our birds.*"—ALICE M. BOYNTON

Legislation.

NEW JERSEY.—In April BIRD-LORE the passage by the House of an anti-spring shooting bill for wild fowl and shore-birds was reported. When the bill reached the Senate, it was referred to the Committee on Game, consisting of three members, one each from Bergen, Monmouth and Ocean counties. At the hearing in the Senate Chamber, the professional gunners and those interested in the preservation of shooting, but not of the birds, were out in full force. They had no arguments to advance of a scientific or economic nature, but their strong plea was that they had always shot birds in the spring and still wished to do so and that it did no harm, and their gain and pleasure should not be interfered with by sentimentalists. One of the advocates of spring shooting was a clergyman and some of his ornithological statements were of such a remarkable character and so entirely new to all of the scientists present that one was led to wonder whether his ecclesiastical lore might not have been obtained in the same school. The bill was never reported out by the Game Committee and consequently the lack of wild fowl and shore-bird law still exists in New Jersey. Without exception this Commonwealth has the most barbaric law regarding wild fowl and shore-birds that now is extant in any part of the continent of North America. Further, it is deceptive and misleading, for it seemingly provides a close season for ducks and snipe, but it is so carefully arranged that the period that is closed by law is only when there are no wild fowl or shore-birds in the state. Repeated visits to Trenton were made by those interested in the passage of the anti-spring-shooting bill to urge on the Game Committee to let the bill be passed upon by the Senate as a whole, and not to have the Committee decide a question which was of interest to the entire state. Every possible

argument and legitimate influence was brought to bear on the Committee, but without avail. The bill was killed in Committee by a vote of *two* to *one*. And thus the people of the state of New Jersey were deprived of their unalienable right to have a voice in the making of the laws that they are subject to. Legislative committees, as death-traps for bills, are far too prevalent at the present time. This is death to statesmanship, for a legislator is now valued far more for his ability to steer a bill to Committee and there advance or kill it, than for ability to expound to his fellow legislators, in public debate on the floor of the chamber, the worth of a measure or explain why it should be defeated. In the present case the whole state of New Jersey was disfranchised by the action of two men, and yet not another legislator raised his voice in protest. Is not government by the people a farce in such cases? However, it is, after all, the fault of the people themselves for not taking enough interest in legislation to keep in touch with the work of their representatives and when they do or do not approve of measures to speak plainly and forcefully.

NEW YORK.—In April BIRD-LORE attention was called to the bills to prevent sale of wild fowl after the close season and also to stop the cold storage of any birds or game. The Legislature was in session almost six months, yet these bills were never reported out by the committees in charge, although persistent effort to that end was made by repeated visits to Albany, by letters and by all other legitimate means. The lack of this legislation is a serious defect in the game laws of New York. This is another case where the criticism made of legislation in New Jersey will apply with equal force. All of this emphasizes the urgent need for Federal control of all migratory birds. So long as there is divided control over creatures that are in one state one day and in another the next, satisfactory protection cannot be given them. It is practically impossible to get the legislatures of all the states to look at the matter in the same light. It is a serious subject and one that deserves the closest attention from the public. As a marked example

of the need for Federal control, take the case of wild-fowl laws in the states of New York and New Jersey. During the northward migration, wild fowl can be killed in the latter state, but cannot be in the former, although the two great wild-fowl resorts of Barnegat Bay (N. J.) and Great South Bay (N. Y.) are only a few miles apart. It is a manifest injustice to the citizens of New York that New Jersey permits the killing of wild fowl during the spring, and it is a still greater injustice to the citizens of the whole country that on one side of an arbitrary geographical line migratory birds may legally be killed, while on the other side of the line they may not be. The only remedy for this inconsistency is to place all migratory birds under Federal control. Several feeble attempts were made to pass local bills permitting spring shooting of wild fowl and snipe, but they were successfully combated. However, were it not for the vigilance of the National Association in all legislative matters, a flood of such bills would be passed each session.

Very early in the session foreign-game-sale bills were introduced in both branches of the Legislature. The Committees to which they were referred were seen at once and an agreement was obtained from the Chairman that before the bills were reported the National Association should have a hearing, when it could present reasons why the bills were undesirable and a formal protest against their passage. A hearing was not called for, and it was supposed that the advocates of the bills had abandoned them. In the Assembly in this state, about ten days prior to the close of the session, all unfinished legislation is taken from the hands of Committees and is placed in charge of the Rules Committee and thereafter no hearings are held. Much to the surprise of the executive of the Association a bill to amend Section 33 of the Game Law was introduced by a member of the Rules Committee. This amendment was the old Foreign Game Sale Bill in another form, but with all its vicious features. This necessitated another trip to Albany; a stay was obtained for a few days to enable the Association to prepare a brief, showing why the proposed amendment was

undesirable legislation. To prepare such a brief necessitated a trip to Washington to consult experts on the subject. A copy was sent to Governor Hughes, and also to many of the most prominent and influential members of both the Senate and Assembly. Nothing further was heard of the bill.

The brief was as follows:

Brief on Assembly Bill No. 2769, Entitled
An Act To Amend Section 33 of the
Forest, Fish and Game Law Relating
to Certain Varieties of European Birds.

This bill proposes to authorize, in any city of the state having a population of more than a million, the sale during December, January, February, March and April, of five species of foreign game birds, namely, Egyptian Quail, Red-leg, Lapwing, Russian Grouse, and Rebhühner; attempts to impose a tax of one cent on each bird imported; and provides for the appointment of at least two special officers at a salary of \$1,500 and an allowance of \$1,000 each for traveling expenses—a total annual expense of at least \$5,000—for carrying out the provisions of the Act.

This bill (1) contains provisions in direct conflict with the constitutions of New York and of the United States; and is also (2) defective in title; (3) bad in form; (4) bad in policy; (5) class legislation.

(1) *Bill Unconstitutional*. In so far as the bill provides for imposing a tax on birds imported, it is clearly in conflict both with the Constitution of the State of New York and the Constitution of the United States. On p. 4, line 1, occurs the provisions:

A person, firm or corporation importing said game shall, upon the arrival of said game into the port of New York, pay a tax of one cent per bird to the Forest, Fish and Game Commission, to be paid by said Commission into the treasury of the state of New York in the same way as other moneys are received and transmitted into said treasury by said Commission.

No statement is made as to the reasons for or objects of the tax and the bill is, therefore, clearly in conflict with the provision in Section 48 of the State Constitution, which declares:

Every law which imposes, continues or

revives a tax shall distinctly state the tax and the object to which it shall be applied, and it shall not be sufficient to refer to any other law to fix such tax or object.

The bill is also clearly in violation of Art. 1, Sec. 10 of the Constitution of the United States relating to import duties. The Supreme Court of the United States in passing upon a provision enacted by the state of Maryland in 1821, almost identical with the tax provision of this bill, held in *Brown v. Maryland* (12 Wheat. 419) that:

An act of a state legislature, requiring all importers of foreign goods by the bale or package, etc., . . . to take out a license, for which they shall pay \$50 and, in case of neglect or refusal to take out such license, subjecting them to certain forfeitures and penalties, is repugnant to that provision of the Constitution of the United States which declares that "no state shall, without the consent of Congress, lay any impost, or duty on imports or exports, except what may be absolutely necessary for executing its inspection laws;" and to that which declares that Congress shall have power "to regulate commerce with foreign nations, among the several states and with the Indian tribes."

The principles here laid down have been applied, reiterated and relied upon by the same court in subsequent decisions so often that this decision is now generally regarded as a leading case for the guidance of courts in the interpretation of this section of the Constitution.

(2) *Title defective.* The title is defective:

(a) In purporting "to amend Section 33 of the Forest, Fish and Game Law relating to certain varieties of European birds." Section 33 of said law relates primarily to the protection of non-game birds native to the state of New York, not of European birds, or of game birds. It therefore attempts to amend a section which in reality has no existence as there is no "Section 33 relating to certain varieties of European birds."

(b) The bill attempts to amend Section 33 by deliberately inserting two subjects, each separate and distinct from the subject-matter of the original section (1) the sale of certain game birds imported from Europe, and (2) the imposition of an import tax.

(c) The bill is manifestly a local measure in that it applies only to cities which have a population of more than a million, that is, to the city of New York, and as such, its title is in violation of that provision of the Constitution of New York (Sec. 40), which declares that "No private or local bill . . . shall embrace more than one subject and that shall be expressed in the title."

(3) *Bill Bad in Form.* The subject-matter of the Forest, Fish and Game Law is arranged in an orderly manner, and to facilitate reference to the various topics, each special subject is placed in a separate section which is given a distinctive number. The amendments proposed in this bill have no relation to the subject-matter of Sec. 33, but relate primarily to the sale of Grouse and Quail, and as such, should be given a distinctive number following either Sections 28 or 29.

The bill is ambiguous. (a) In authorizing sale of *European* game but allowing importation of *Egyptian* Quail; (b) in allowing sale of Red-leg without specifying whether the birds intended are Red-legged Partridges, Red-legged Sandpipers or Red-legged Ducks; (c) in permitting sale of Russian Grouse which may cover a number of species, some of which are indistinguishable from native birds; (d) in permitting sale of 'Rebhüher,' which is not a recognized name in this country of any game bird, but merely a German name that should be translated into the common English equivalent of 'Gray Partridge'.

(4) *Bill Bad in Policy.* (a) The bill is opposed to the general policy of the state in breaking up the practically uniform close season for the sale of game under existing law.

(b) It is opposed to the policy of the state in making a distinction between imported and native game.

(c) It is a direct reversal of the policy of the state maintained at considerable expense to the taxpayers and upheld by the Court of Appeals in the cases of *People ex rel Hill v. Hesterberg*, Sheriff (1906), and *People v. Waldorf Astoria Hotel Co.* (1907).

(d) The bill is bad in policy in attempting to amend Section 33, a section which

has already been re-enacted three times (in 1901, 1902 and 1903) since it was originally passed in 1900, which has been construed by the courts and the language of which is now in a form which is generally understood.

(e) The bill is bad in policy in authorizing an expenditure of \$5,000 or more for the employment of two special officers, without the powers of ordinary protectors, who may be on duty less than half the year solely for the purpose of inspecting the transactions growing out of the importations of a single firm. How extensive these transactions may be is perhaps disclosed by the tax clause which is evidently intended to reimburse the state for the cost of inspection. At this rate, the importations would aggregate at least 500,000 birds per annum.

(5) *Class Legislation.* The bill is evidently drawn in such a way as to be general in form, but by restricting its operation to "any city of the state having over one million in population," it is practically limited to the city of New York. In fact, on p. 4, line 1, the mask of general form is thrown aside in the declaration that "a person, firm or corporation importing said game, shall, upon the arrival of said game into the port of New York pay a tax, etc.," ignoring the fact that such game might be imported via Canada through the ports of Buffalo, Niagara Falls, Ogdensburg, Plattsburg, Sag Harbor, Oswego, Rochester, Dunkirk, or Cape Vincent. The measure will work injustice and hardship to every other city in the state and to every game-dealer outside of New York by granting exclusive privileges in Greater New York for the importation and sale of five kinds of foreign game birds in large quantities during four months in the year when the season is closed elsewhere in the state. Careful scrutiny of the history of the measure and of the restrictions of the "person, firm or corporation importing said game" will reveal the fact that the bill is as clearly drawn in the interests of a single firm as if its title were "A bill to benefit A. Silz & Co., of New York City."

MASSACHUSETTS.—The bill referred to in February BIRD-LORE to "Authorize the

Fish and Game Commission to take certain unimproved lands upon the Island of Martha's Vineyard" passed the Legislature and is now a law. This act is really for the purpose of enabling the Commission to conduct a scientific experiment of the greatest value and interest, i. e., to preserve the very small remnant of Heath Hens from extermination. This sole remaining colony of a once numerous species of Grouse is in an ideal situation in which to conduct the experiment. Not more than one hundred birds still remain, and the question of whether a species so close to extermination can be indefinitely continued will be watched with the greatest interest by scientists in all parts of the world.

CONNECTICUT.—In addition to the other excellent game and bird laws adopted by this state during the present legislature, a law was secured providing for hunting licenses for residents, non-residents and aliens. A law was also passed "making the possession in the open air on Sunday of any implement for shooting, *prime facie* evidence of an intention to hunt."

Certainly the citizens of Connecticut have reason to be proud of the very advanced position held by the Commonwealth in the great economic question of bird-protection.

A Bison Herd in the Adirondacks

The legislature of New York appropriated \$20,000 for the purchase of a herd of Bison to be placed in the Adirondacks. Governor Hughes vetoed the item, in view of the many other demands on the treasury of the State. In Massachusetts the citizens interested in the perpetuation of the Heath Hen did not ask for a state appropriation, but raised the money themselves to carry on the experiment. Had the same method been taken in this state, Governor Hughes probably would have conceded the use of the necessary public lands. Both of these instances emphasize the importance of not permitting a wild species to approach so near extermination as the Bison and Heath Hen, and also emphasizes the need of the proposed ten years closed season for the Wood Duck.





WOOD DUCK

Family—ANATIDÆ
Species—SPONSA

Order—ANSERES
Genus—AIX

THE WOOD DUCK

By WILLIAM DUTCHER

The National Association of Audubon Societies

SPECIAL LEAFLET NO. 10

(Supplement to Bird-Lore, Vol. X, No. 4, July-August)

The object of this leaflet is to call the attention of the American public to a condition that now exists, but which it is hoped may be remedied by concerted and prompt action on the part of all those who love the beautiful in nature and are willing to guard it.

**Former
Abundance** When Audubon wrote his account of the Wood Duck in 1835, only seventy-two years ago, he referred to their very great abundance in such statements as follows: "At Boston, where I found them rather abundant during the winter"; "I knew a person in South Carolina who caught several hundreds in the course of a week"; "For my own part, I assure you, I have seen hundreds in a single flock." That they were abundant even as late in the last century as in the seventies is well established by reference to Dawson's 'Birds of Ohio,' published in 1903, in which it is stated "Thirty years ago Wood Ducks were killed by wagon-loads every spring."

**Present
Scarcity** Dr. A. K. Fisher, Ornithologist of the Biological Survey, United States Department of Agriculture, was the first to call attention to the growing scarcity of the Wood Duck in an article entitled 'Two Vanishing Game Birds,' published in 1901. He said, "Unless strong protective measures are soon adopted, the Woodcock and Wood Duck, two popular and valuable game birds, will become extinct."

In order to secure late data, inquiries were made in all parts of the continent, and the information received came from so many points that it can be relied on to fairly represent the present status of the Wood Duck. The consensus of opinion is that the Wood Duck has become alarmingly scarce. Many reports were received showing that this species has entirely disappeared as a breeder in the sections referred to, while others used such terms as "Absolutely disappeared," "None," "Very rare migrant," "Have seen but one in twenty years," "Decrease 60 per cent—70 per cent—90 per cent." Quotations from the reports might be continued indefinitely, but they would all be of the same general tenor; although, in some localities near the center of distribution of the species, the reports were not quite so alarming. However, nearly every report showed in the most emphatic manner that the time has arrived when the most heroic means must be taken to stop the decrease.

There are several very potent reasons for the rapid decrease in the numbers of the Wood Duck which are worth careful examination. Some

Reasons for Scarcity

of these it is possible for man to remedy, while others are inherent in the habits of the species itself and thus are beyond the direction of mankind. The habits of the Wood Duck, which is often known as the Summer Duck and in some portions of the South as "Branchu," differ greatly from other wild Ducks. This species, as its name indicates, is not a bird of the ocean or even the wide coastal bays, but is found about the swamps and inland streams and ponds, especially those bordered by timber. Contrary to the usual habits of Ducks, it nests in trees, generally in holes or natural cavities.

Its tree-loving habit is one of the causes of decrease. The increase of population in this country, and the consequent clearing of the land for agricultural purposes, the ruthless destruction of the forests and the draining of swamp-lands, have lessened the number of breeding sites; this applies particularly to the eastern and middle-western section of the country. In many localities where the Wood Duck was known to breed until within a few years, it is not now found, owing to the fact that every tree suitable for nesting has been cut down. This cause of decrease is largely due to the habits of the species, and in some degree to the unwise practice of deforestation, which unhappily is so common in these days. When the citizens of the United States wake up to the fact that it is criminal to cut down all the forests, the homes of the Wood Duck will be saved; but, at the present rate of decrease of this species of Duck, it may then be too late to be of avail.

Spring- Shooting

Another cause, and probably the greatest, is spring-shooting. The Wood Duck is a species of very wide distribution on this continent, and in some portions therefore, it is practically a resident. For this reason, the species has suffered far more than any other of the wild fowl by the wasteful practice of spring-shooting. The killing of any species of birds while on the migration to the breeding grounds or after they have reached there, is indefensible, and, in these days of increasing intelligence respecting the value of birds, both economic and æsthetic, is becoming more and more repugnant to the self-respecting sportsman. Until spring-shooting is absolutely prohibited, both by law and sentiment, the wild fowl of this continent, as well as all other migratory game birds, will decrease. Let us examine for a moment how spring-shooting affects the Wood Duck. This species, according to Audubon, pairs about March first in Louisiana and as far north as Kentucky, and sometimes a fortnight earlier; in the middle states about April first, and still later as it approaches the northern limit of its range. One of the writer's correspondents in Louisiana, who states that his knowledge of the "Branchu" is derived from fifty years' experience as a sportsman, claims that these birds "pair off or mate during the month of December, and from then on until February they prepare for breeding. On the 11th of May (1907), on my way to the fishing haunts, I came across a flock of young, fully four weeks old." A

report from Kansas states, "Early in April, 1906, examined a female Wood Duck, killed by a local hunter; the ovaries contained partly developed eggs." A correspondent at Princeton, N. J., states, "In 1905 a pair were killed here late in April, after two eggs had been laid in their nest." Still another reporter, in Utica, N. Y., states, "Saw female killed April 15th, which contained a well-developed egg." A well known ornithologist at Portland, Maine, says, "Wood Ducks reach us mated, and spring-shooting of mated birds has no doubt had a potent influence toward decrease." From the evidence given above, it is fair to assume that the Wood Ducks that are resident in the Gulf states certainly mate early in February, with some evidence that pairing takes place earlier, and that mating has already taken place when the migratory numbers of the species reach the northern limit of their range. It is, therefore, a self-evident fact that every Wood Duck that is killed after January first is a strong factor in the ultimate and early extermination of the species. There are no words too strong to use in condemnation of the unscientific, wasteful and depraved practice of killing mated and breeding birds. A sportsman who has any self-respect or regard for the rights of future generations will not engage in spring-shooting.

A glance at the accompanying map, showing the 1907 open seasons for Wood Ducks will demonstrate to the reader what a terrible drain on the species spring-shooting is, for the diagram shows that, in the fifty-seven states and provinces, thirty-eight legalize the shooting of Wood Ducks during all or some part of the spring. It will also be noted that six states, nearly 10 per cent, give the Wood Duck no protection whatever, but allow it to be killed whenever it is found in the state. It may also be noted that, in several of the states where no protection is given, the Wood Duck is a resident, which renders the entire lack of protection a far more serious matter than if the species were only a summer visitor for the purpose of breeding. Is it strange that by reckless waste, this species of wild fowl is rapidly becoming exterminated?

Wood Ducks are greatly attached to their breeding places, and are gentle and rather unsuspicious. This very fact is often the cause for the complete annihilation of an entire family, where summer-shooting is allowed. Several of the reports received give this as one of the important reasons for the decrease of the species, stating that in some cases, even before the open season, entire broods are killed by one or two pot-shots, and that in many sections the entire hatch of a season is killed on the first day for legal shooting.

There are several other reasons for the decrease that may be mentioned, but cannot be considered in detail: the very great increase in the number of gunners; the marked improvement in guns,—compare the old muzzle-loading shotgun with the present breech-loader and the magazine gun; the great number of gasoline launches

that are on the lakes and streams, which can cover more space in an hour than a boat propelled by oars could in a day; the natural enemies, such as the Great Horned and the Barred Owls that live in the same territory with the Ducks; the turtles, snakes and large predatory fish that are known to destroy the ducklings when they are first led to the water. With so many artificial, as well as natural enemies to deplete, the numbers of Wood Ducks, it is imperative that drastic action should be taken *at once*, to prevent the total extermination of the species.

There are several methods by which the rapid extinction of the Wood Duck may be prevented, the first of which is to have Congress pass a law placing all migratory birds under the control of the Department of Agriculture. Federal control of such birds is undoubtedly constitutional. To secure such beneficial legislation is a matter of time and education; the public need to be shown the necessity for such action, and the legislator must be shown that his constituents demand that the birds that cannot secure uniform legislation for their protection by state laws must get it through Congress. In the interim, the second method may be employed, which is to secure in every state and province where the Wood Duck is found, either as a resident or migrant legislation making *a closed season for ten years*. There should be a heavy penalty for the slightest violation of the act, either by shooting, possession, offering for sale, or the destruction of nests or eggs. Two states, Massachusetts and New Hampshire, have already adopted such a statute,—but only for five years from 1907. In addition to such a law, which is imperatively necessary at this time, it is recommended that all the clubs of the country which control large preserves, and individuals owning estates where suitable breeding places are found, should engage in the experiment of raising Wood Ducks, which at the end of the breeding season could be liberated. With a ten years' close season and breeding by public-spirited citizens, this beautiful species of American wild fowl may be prevented from following in the steps of the Bison, the Passenger Pigeon and others of the wild fauna of the continent that the present generation of nature-lovers are lamenting the loss of. Shortly, it will be too late to take action. This is an appeal to the ornithologists, who still have scientific facts to discover; to the true sportsmen, who are willing to refrain from reducing a species of game-bird to the verge of extinction, and to the nature-loving men and women of the country, who desire the added beauty of all wild life, to join in the demand that not another Wood Duck shall be killed for a period of ten years, to enable a fast-disappearing species of wild fowl to recuperate its wasted and depleted ranks. Do not read this paper and idly pass it by, but join in the movement, actively and aggressively; nor cease your good work until it is known that success has been achieved, and that the Wood Duck is no longer in danger of being classed as an extinct species.

CLOSE AND OPEN SEASONS FOR WOOD DUCKS IN 1907

NORTHERN STATES												
	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Maine												
New Hampshire												
Vermont												
Massachusetts												
Rhode Island												
Connecticut												
New York												
New Jersey												
Pennsylvania												
Delaware												
Maryland ¹												
District of Columbia												
Virginia												
West Virginia												
Kentucky												
Ohio												
Michigan												
Indiana												
Illinois												
Wisconsin												
Minnesota												
Iowa												
Missouri												
Kansas												
Nebraska												
South Dakota												
North Dakota												
Montana												
Wyoming												
Colorado												
SOUTHERN STATES												
North Carolina ¹												
South Carolina												
Georgia												
Florida												
Alabama												
Mississippi												
Tennessee												
Arkansas												
Louisiana												
Texas												
Oklahoma												
New Mexico												
Arizona												
PACIFIC STATES												
California												
Nevada												
Utah												
Idaho												
Oregon												
Washington												
CANADA												
Alberta												
British Columbia												
Saskatchewan												
Manitoba												
Ontario												
Quebec												
New Brunswick												
Nova Scotia												

¹ Seasons vary in different counties

Bird = Lore

A BI-MONTHLY MAGAZINE
DEVOTED TO THE STUDY AND PROTECTION OF BIRDS
OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

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No. 5

Bird Protection in Italy as It Impresses the Italian*

By FRANCIS H. HERRICK

Author of 'The Home Life of Wild Birds'

II

THE question of protecting wild birds is usually discussed in relation to their practical use to man, but, says Nigro Licò, there is also the question of humanity to be considered. If we drop the consideration of real or presumed usefulness, should the birds be protected out of regard for our esthetic feelings and our duties to humanity? Upon this point Sig. Salvadori is again quoted as follows: "As to the esthetic side of the question, I heartily agree that the birds are an ornament to the woods and fields, but who could deny that the butterflies are still more so? Is it not a pleasure to see, in the spring time, and to salute again the strawberry *Colia*, the gloomy *Antiopa*, the resolute *Io*, the great *Policlora*, all of them harbingers of the mild season? Why do we not dance with joy when one after another are present on the scene—the silent *Cavolaia*, the social *Pieridi*, the restless *Arlecchino*, the superb *Apollo*, the grave *Podalirio*, the playful *Licene*? Why is it not a pleasure for whomsoever is not a stranger to nature, to welcome these familiar friends, to study anew and to admire the varied colors with which they are clothed, their manifold forms, properties, and habits? Unfortunately, all of these graceful and attractive creatures, which contribute so much to the esthetic side of nature, all are more or less injurious and on this account all are condemned to destruction."

"In respect to humanity, I would like, moreover, to ask in turn, is it a humane act, when, with a shot from a musket one brings down a Woodcock, a Partridge, or Grouse; when, with its legs broken or its bill crushed or split, it is condemned to a slow and painful death by hunger? We bird hunters, at least, do not torture any of our victims. Not a brief second passes between the shot and death. Why, on the score of humanity, should we not also speak of a prohibition of hunting? Such a construction of the law would in no way, I believe, receive official sanction, and further, I submit, it would be refused with entire reason."

*The first part of Professor Herrick's Paper appeared in the July-August number of BIRD-LORE.

This sounds well, but has not Sig. Salvadori confused the main point with subordinate issues? The great question raised is the protection of song birds, which, according to a large number,—probably the largest number of students, the world over,—are, upon the whole, of decided benefit to agriculture, and therefore to man, to say nothing of esthetics, and this question must not be involved with the Hindoo doctrine of the sanctity of all animal life. Invertebrates, like the insects, are not to be placed on a par with the highest expressions of vertebrate life. We all must and do acknowledge that hunting, whether for food or sport, entails inevitable hardship upon the animals. The rule for all to follow is: *No needless sacrifice of the life of any animals whatsoever, whether vertebrate or invertebrate*, unless (1) they are destructive to the life of man, or to his interests, especially in tilling the soil, and (2) unless they are of prime value as food. Where two living beings—the man and the animal—can not dwell together in peace and to mutual advantage the rule has ever been and must ever be that the weak gives way to the strong. Under the head of necessary food animals, come the domesticated kinds like the pig, sheep, and ox, various birds, and, as a compromise to the latent savage instincts of man in the present state of civilization, wild or preserved game, whether fish, flesh, or fowl. As to what shall be legitimate game among the mammals and birds, it should not be difficult to reach a common-sense agreement. No animal should be considered *game* which is not useful for food, and no food animals should be sought among the small and harmless mammals, or among the small or useful birds. Taking the life of the higher animals is an unpleasant, and, when needless, a cruel proceeding; but it is necessary unless the whole world is to be converted to a vegetarian diet. Nature, however, does not seem to expect this, and probably would not permit it, for in the alimentary tract of man she has made a luxurious provision for both the digestion and the absorption of proteids. Proteid is also stored away in the muscles and other tissues, to meet unexpected emergencies, like the storage bins of fat and starch in both plant and animal bodies. Now, since the animals are the great source of proteid, or nitrogenous food, it is evident that nature expects us to make a liberal use of them in our diet.

The laws and proposals of laws, as given by Licò, upon hunting in Italy, are interesting and instructive. As he remarks, those who are interested in the protection of birds, from whatever motive, confine their attention to laws to regulate hunting. Many assemblies have been held for this purpose, and many societies have been formed to obtain from the government the most judicious laws upon the subject.*

*We are told upon the authority of Comm. Durando, that the present laws which regulate hunting are those which were in force in the ancient Italian States. Thus, in the Neapolitan and Sicilian provinces the law of October 18, 1819 exists, and is still in effect; in what were formerly the Papal States, with the exception of the Marches, the edicts of July 10, 1826, and August 14, 1839 prevail; in Tuscany the law of July 3, 1856; in Modena the decree of February 6, 1815, and notifications of January 22, 1826; in Parma the royal resolutions of September 1, 1824, June 10, 1828, May 23, and 28, 1835; in Venice the law of February 13, 1804,

It is not suprising to hear it said that "the multiplication of so many different rules brings confusion and contradiction between regions but a short distance apart or contiguous, whence the negligence or the ignorance of the authorities to whom the execution of the law belongs; whence everything is in disorder in the development of rural economy everywhere so important, and especially in Italy."

What these varied and antiquated laws are in every case is not stated, but it is evident from the present practice, as already suggested, that they were framed mainly in the interests of the hunters, and not of the birds nor of agriculture.

What are the legal enactments demanded by those Italians who desire to really protect their birds? Licò quotes the statement of Sig. G. Spanna, made at the Congress of the Zoölogical Society, held at Turin, in October, 1898, and which may be summarized as follows: (1) To prohibit absolutely the hunting of birds by any means except firearms; (2) To prohibit the destruction of the nests of birds, taking or destroying the eggs, the young, the mothers; disturbing in any way the nidification, also with the design or pretext of training dogs for hunting, and this in whatever position the nest is found; (3) To prohibit the hunting with firearms from March 1 to August 15, in all Italy; (4) To make it penal to possess and to sell in public or in secret, during the time when hunting is forbidden, any birds, whether living or dead; in the hunting season it is legal to receive only those birds which have been killed by firearms, and on the bodies of each of which appears a wound from a leaden bullet, sustained by the living animal; (5) To prohibit at all times the sale of birds alive, in cages, or otherwise confined, excepting only foreign species, or those which are not migratory or resident in Italy; (6) To increase the tax upon hunting with firearms to such a sum as may correspond to the loss sustained by the public treasury through the suppression of the concessions for hunting with nets, snares, and every other forbidden means; (7) To declare as lawbreakers all who hunt in property not belonging to them, and in the neighborhood of lakes, ponds, or streams, and water-courses belonging to the provinces, to the municipality, or to private persons, without having previously obtained permission in writing from the proprietor, which is to be shown to the police officers whether public or private; (8) To the person authorized to proceed against the lawbreakers, and to the accusers, a share of the fine is to be given, as well as of the sums paid per head of the game seized; (9) In so far as regards the secondary rules, account is to be taken of the royal patents of what was formerly the kingdom of Sardinia.

The sponsor for these laws thus expresses his opinion regarding them: "Hunting, now-a-days, I am glad to say, is no longer a means of procuring food.* For a few is it a means of diversion and of ostentation in banquets. In either case, and decrees of July 7, 1804, September 21, 1805, March 21, 1811, and the proclamation of July 5, 1615; in the provinces once forming the Sardinian States, and in those of Lombardy and the Marches the royal patents of December 29, 1836, July 16, 1844, and July 1, 1845.

It thus appears that the antiquated laws upon the shooting of birds in Italy date all the way from 1615 to 1856.

*This is hardly the case in Italy where shooting birds is often a means of eking out a living.

the pleasure and the luxury ought not to be obtained at a loss to the public economy, and, therefore, the coercive measures framed to protect it have to be such as produce efficient results."

Had the provisions recommended by Spanna been adopted in 1898, and stringently enforced throughout the Kingdom of Italy, not only that country, but the whole continent of Europe, would have been benefited. The proposals are designed to prevent wholesale slaughter by restricting the times and methods of killing wild birds. No discrimination is made between kinds supposed to be useful, useless, or injurious, so far as agriculture or any of the interests of man are concerned.

Considering the antiquity of the practice of killing birds in Italy without any discrimination whatever, and the state of public opinion upon the whole subject of bird protection, the proposals of Sig. Spanna are commendable, and if they were adopted and carried out they would mark a great stride in the right direction.

We learn further from Licò's Manual that demands for new and uniform laws to regulate hunting have not been made in Italy alone, but in other countries also. Since the migratory birds change their habitation at stated periods, it is for the interests of all countries through which they pass to protect them by common consent and for the common good. Again, we are told that a great ornithological Congress was held at Aix, in Provence, November 9-14, 1897, and another at Gratz, in Stiria, August 5-8, 1898. The resolutions passed at these meetings were considered by the different governments; but to the proposals made by France, with the concurrence of adjoining states, unfortunately, the Italian government did not agree.

From the preceding extracts it will be seen that those Italians who have given any thought to the subject of birds, in relation to man, are by no means agreed upon the desirability of evoking the aid of the law for the protection of birds of any kind. Licò presents both sides of the question from the standpoint of an intelligent Italian, and I hope it has been made sufficiently clear to what extent I am indebted to him for the substance of many of the preceding paragraphs. His conclusion of the whole matter, in which his own sympathies are clearly expressed, is given in the following sentiments: "Birds, like all other creatures endowed with feeling, ought not to be subjected to needless suffering on the part of man; they deserve his protection. This sounds well! Again, when everything is considered, birds do more good than harm. The conclusion is logical! But the excess of utility over damage is so great we should favor in all possible ways the multiplication of birds. How would that sound? This is a question to which we should give more direct attention, before insisting on new and definite results in the work of national and international legislation. Heaven forbid that a humanitarian cause like this should one day make its defenders repent of superfluous zeal!"

Thus, we are brought again to the main problem: "Should the birds really be protected?" as the Italians conceive it, but it cannot be discussed at the close

of this paper. My aim has been to give the view of the other side. But, we must ask, Are Salvadori, and Berlese and Licò, who voice their opinions, and the others of their school right in considering bird protection as a question of such grave doubt that they will not lift a finger to stay the slaughter? I believe that the Italians are right in some of their minor premises, but wrong in their general conclusion. So far as argument goes, it can be shown upon the broad general facts of biology that indiscriminate slaughter of the birds is very unwise. If birds are indiscriminate layers of insects, which is admitted on all sides, how much greater is the evil for man to become the indiscriminate slaughterer of the birds?

On the practical side, we are putting the question to a test in this country, where, thanks to the ornithologists and bird-lovers, and to the elaborate analyses of the food of birds made by the National Government, we are beginning to pursue a very general and uniform policy of protecting at all times as many of our wild birds as possible—a policy quite the reverse of that favored in Italy. If the other factors in the case can be equalized, time should soon show who is right and who is wrong.

It is difficult to prescribe for the patient who will insist that he has no ailment, but, nevertheless, we believe that a great reform is needed in Italy, in checking what we consider the insane and shameful slaughter of the song birds of Europe, during the migratory periods especially; but this reform must come from the Italians themselves. Possibly, foreigners can do something to favor the movement: at all events, it is for the interests of the other nations of Europe, and of Germany and France in particular, to see that this cause does not languish. From all accounts, a similar reform is needed in southern France and in Spain.

At some future time another international congress will be called to discuss anew the subject of bird protection, and to draft a uniform code of laws governing the destruction of migratory birds in all the countries through which they pass. An international court of arbitration should then be formed before whom, when necessary, every question in dispute can be brought, and, let us hope, settled, at appropriate times.



The House Wren

By FRED. L. HOLTS, Mankato, Minn.

With photographs by the Author

IT has been my pleasure for several summers to put up Wren boxes, and to watch their tenants. The tameness, audacity and nimble ways of the Wrens, and their exuberant twittering song make them delightful birds to have around a city home.

Wrens usually arrive in this locality about the second week in May, and go to selecting their homes very soon after arrival. I put up two boxes last year, and before they had been here a week the Wrens had begun to build in one box, and had preëmpted the other also by occasionally carrying material into it. This second box was later used for the second brood.



SHOWING THAT THE NESTING MATERIAL RARELY LEAVES ROOM FOR THE BIRD

I had no trouble in keeping the House Sparrows from the boxes. If the hole is not more than an inch in diameter, the Sparrows cannot get in, but the Wrens can. One winter I left the Wren box attached to a shed. A red squirrel took possession of it. He gnawed the hole large enough for him to enter. Next spring I fastened the box to a tree. I wished to test the statement I read in BIRN-LORD that the Sparrows would not build in a box attached to a swaying tree. The Sparrows soon discovered the box, went in and examined it, but, on thinking it over, decided not to build there. Later the box was used by Wrens which, however, were not

molested by the Sparrows. Parenthetically, I may remark that House Sparrows occasionally build rude nests in trees, in spite of their swaying.

Wrens seem to work in the early morning hours in collecting the nesting material. Sometimes, though rather rarely, I saw them at work during the day. The box is filled about two-thirds with twigs about six or eight inches in length. It is amusing to see a Wren picking up a stick by the middle and then poking it into the hole of the box endwise. The box is filled with sticks nearly to the level of the opening. This seems to serve as a sort of platform for the nest proper, which is made of grass and a few feathers.



HOUSE WREN AND NEST

During the building and hatching period, the Wrens are shy and avoid going near the box when observers are present. But, when the young are hatched, the necessity of feeding them at frequent intervals makes the parents bolder. One may then stand within a few feet of the box while the old birds go in and out.

The male is an indefatigable singer from early morning to late at night. The song, though not especially melodious, is so rollicking and cheerful that one enjoys hearing it.

Wrens feed chiefly on the ground, skulking about under the broad leaves of vegetables, weeds and berry bushes picking up cutworms, moths and other insects.

Several broods are hatched yearly. The male shares in the household duties. Before the first brood is fully fledged, the female begins laying in the second nest. Possibly the preëmpting of a second box is forethought on the part of the birds. Toward the last the care of the first brood is chiefly left to the male. The young are unusually well-fledged before they leave the nest. In fact, they are able to fly fairly well several days before leaving the box. They are very clamorous for food and will thrust their heads out of the box to be fed. On finally leaving the nest the young are conducted to some brush-pile, in whose shelter, where cats cannot reach them, they may be heard twittering for several days. After the last brood is hatched the Wrens are rarely seen or heard in the city. They go to the fields and copses for the rest of the summer.



A HOUSE WREN FAMILY

A Study of a House Wren

By ELIZABETH FREEMAN TEN EYCK, Lansing, Mich.

I HAVE always wanted a Wren tenant, but, through pressure of affairs, especially at the proper season, I had failed to arrange the proper conditions.

Even now it was past the middle of June, and, if the wife of a professional ornithologist had not assured me it was not yet too late, another year would have passed without the Wrens in residence. In a storeroom I found an immense tin-cup which I suspended on a hook by its handle, under the porch in a good position for observation.

The Wrens were to be my company while the family went on a short tour, taking with them the life of the house—the boys. Boys attract other boys, so that the result of one boy in a family is a merry house. But there are compensations for loneliness and quiet which I was to learn.

A neighbor made me envious with two Wrens' nests for which she used common plant-pots, nailed up under a porch, the small drainage hole serving the purpose of a door.

It was but a little while before the cup was observed and a Wren began to carry in dry twigs, which, being of various lengths, many of them trailed outside, looking very untidy. This would never do. I threw out all this accumulated treasure and tied over the top of the cup a piece of shingle in which I had bored a small hole for a door. As the cup was hung up by its handle, the door, of course, was not perpendicular. For a few days it remained untouched. Then two birds quarreled for its possession until one gave up and went away. I should like to think that the one remaining in possession was the first comer whose work I had destroyed.

Many a sweet song was sung by the cheerful little workman, to the not-at-all lonely woman sitting on the porch, watching him. We like thus to think that the birds know us and care for us. Yet, I fear they are, in this respect, like a certain "friend" of mine, an unsuccessful elderly spinster who, I am sure, regards me in the light of a good, square meal! The dish of water, too, they like to have where they may drink and bathe, though I never saw the Wrens take advantage of it for either purpose.

Watching the little builder, I wondered at his faith, as he sang day after day for his mate. It required no little skill to manage the forked twigs that went through the tiny doorway. Coming sometimes wrong end first, as they did, the little bill slipped along until it reached the end which made it possible to pull and push it in. No pictures that I have ever seen of Wrens are like this one. He carried his tail on a line with his body, instead of perking it up at an angle; but perhaps this attitude comes later when the cares of a family crowd upon him and make him pugnacious.

In other years, a Wren had sung all summer long in a spruce tree near the house, the same sweet, monotonous, liquid trill. Why is it that a monotonous song can so fill the heart that it is ready to run over? The Whip-poor-will with his

three short notes always fills me with a homesick longing, and the years when I could not hear him have been many.

For days my Wren sang and labored on without a mate. When he absented himself for some time, I wondered if he had gone to Florida to fetch her, and whether, when she came (for the Wren's faith was contagious and I never doubted she would come), she would like the cup house. I had heard instances of the bride flouting the home prepared for her by her little mate and utterly refusing it, whether out of pure coquetry or obstinacy, or for good and sufficient reasons which she saw and he did not. Years ago I nailed up in a pine tree a shallow cigar-box in which a small hole was bored, and a male Wren at once began to build in it. The female refused it, and I considered her the more sensible of the two.

If the Wren of my porch in his absence had been South, he returned alone and sang on as cheerfully as ever. Dick, our canary, hung in the porch and the Wren often alighted on his cage to sing his bubbling song, perhaps taunting the caged bird on his imprisonment.

When at last the expected one arrived, it was a question in my mind, whether the bright silvery house provided attracted her, or the song of the preserving bird whose patience was now rewarded. I wondered, too, if it were his mate of last year or only a casual traveler who came. How could one find out? We know the ostrich mates for life, but I proved by my summer study that this is not true of the Wren. Very soon there was a tiny chocolate-colored egg in the nest. One could see it by lifting up the door, though the nest was in the farthest corner on the top of a pile of twigs that almost filled the cup. This was on the first day of July. There were then no decorations to the nest. On the fourth, when the shingle-door was lifted, the little bird flew out through the little hole with a sad little peep, the only sound she had been heard to make. If she only could have sat still for a minute in her dainty bower! Surrounding her were speckled hen's feathers each standing on its point, which was somehow woven into the nest, each feather being so placed as to curve over the nest. It was beautifully artistic (I feel as though every word of this sentence should be in italics), and may have been arranged by her mate while she sat on the nest, for she just fitted into her bower.

Do Wrens always build so daintily? I put this question to my neighbor, whose Wren's nest in nailed-up flower-pots and she answered carelessly that they always do. I doubted whether she gave thought enough to my question to answer properly, for, when the nest-box is in something you cannot open, how do you *know* what is inside? If I had put up a plant-crock for a bird-house, I should never have seen this remarkable decoration. On July 5, there were five eggs in the nest.

The birds seemed to get their entire living out of an adjacent pine tree, among whose needles were plenty of small insects. When they found an unusually large one, they flew down onto the gravel driveway, to master it. It was a bad habit. The

Wren that will see the danger in this habit, and refuse to do so, will have a better chance to live long. At the corner of the porch was a spreading funkia. Under it our cat loved to lie, though always driven away when found there,—he may have spent the night there. It is a question what to do with cats in the bird-nesting season. On the morning of the sixth, the tragedy must have taken place before I took my place on the porch, for the mother bird came no more. The male bird fretted for her and came and dropped a moth inside the nest, though he knew she was not there. He hung above the cup with his neck stretched down to look in the door, and then uttered his discontented call. Once before, when she was lost, he had used this querulous call and it had driven her back to the nest,—she was neglecting her duties. Now it was the only sound he made; there was no more song.

The family came home. If the boy could not see a nestful of young birds he should at least see the eggs! I went to the nest—the eggs were gone—not even a shell was left—and the eggs were not on the ground—there was nothing to show there had ever been an egg in the nest! The doorway was too small for any bird but a Wren to enter,—what had he done with those eggs? Some one said “He must have eaten them.” Perish the base thought!—until it is proved against him.

On the same day in which the loss of the eggs was discovered, the Wren was seized with a fury of industry, and back and forth from the nest to the pine tree he flew, each time carrying out a single feather and dropping it from his perch in the pine tree. When the feathers were all out, he carried out the hairs of which the nest was made till the last one caught about a twig and hung from his doorway. He did not carry out any twigs. What a sad piece of demolition it was. But, fortunately the little fellow had a short memory, for now, on the other side of the house, he at once began to sing for another mate; and the song which had before seemed so cheerful now seemed a very sad and lonely one. It was so late in the season to have his hopes blasted, and how could he expect another mate? As he sang, I counted ten, then counted ten between the songs,—the song and the silence were of the same length. Thus it went on, the bird occasionally coming to the side of the house where the porch with the empty nest was.

And one day she came and entered the little doorway, while his bubbling song and lifted quivering wings testified to his delight. But she came out of the little house, and flew away never to return. Did she feel there the presence of the ghost of the murdered bird? He followed her and never came back. In some happier spot where death had not been, they may have made another home and raised their brood.

An Attempt to Establish a Purple Martin Colony

By WM. C. HORTON, Brattleboro, Vt.

A COLONY of Purple Martins which for twenty-five years had occupied a house at the home of Mr. Wm. C. Horton, Brattleboro, Vermont, having been killed by the exceptional weather of June, 1903 (See BIRD-LORE Vol. V, 1903, 164), Mr. Horton has attempted to establish a new colony by placing Martins' eggs under Tree Swallows. While his experiment has not met with success it is nevertheless encouraging and, from a purely ornithological point of view, exceedingly interesting.

Mr. Horton writes that the "experiment was tried under favorable circumstances, as the Tree Swallows were occupying my old Purple Martin house, and had been for three years. Five years ago, when the Martins left on their migration south, they numbered about eighty young and old."

FROM MR. HORTON'S NOTE-BOOK

May 31, 1907—Received four Purple Martin's eggs from J. Warren Jacobs, Waynesburgh, Pa.

June 1, 1907—I found six Tree Swallow's eggs in nest; four eggs were removed and replaced by four Martin's eggs.

June 6, 1907—I removed the other two Tree Swallow's eggs, leaving the four Martin's eggs, only. The Swallow was sitting on the eggs nicely.

June 16, 1907—7.00 A.M. Found one egg hatched.

June 16, 1907—6.00 P.M. Found two more eggs hatched.

June 17, 1907—7.00 A.M. Found the fourth egg hatched. The young Martins were doing well, their foster parents feeding them as though they were their own.

June 22, 1907—Young Martins growing and looking finely. Eyes not open yet and not a feather started. Foster parents feeding them nicely.

June 24, 1907—6.00 A.M. Young Martins progressing finely. Feathers beginning to show under the skin. Eyes just beginning to open. Foster parents are caring for them satisfactorily.

June 25, 1907—6.30 A.M. Young Martins' eyes about one-third open; feathers just beginning to show through skin.

June 26, 1907—This morning 6.30 A.M. I found the young Martins' eyes open; feathers well started through skin; tail feathers showing perceptibly. All were doing finely and were plump and fat,—foster parents giving them the best of care.

June 29, 1907—7.00 A.M. On visiting the Martin house, I found not one young Martin in the nest. One was found on the ground under the house, and from its appearance I should say it had been dead two or three days. I could not find the other three. What caused this disaster I cannot conceive, but it ended summarily my first experiment in trying to establish a Purple Martin colony.

The Migration of Thrushes

FIFTH AND CONCLUDING PAPER

Compiled by Professor W. W. Cooke, Chiefly from Data
in the Biological Survey

With drawings by LOUIS AGASSIZ FUERTES and BRUCE HORSFALL

TOWNSEND'S SOLITAIRE

THIS species breeds throughout the Rocky mountain region from northern Mexico and southern California to the valley of the Yukon, near Circle City, and the valley of the Mackenzie near the Nahanni Mountains; and from the Pacific coast to western Texas, western Nebraska and central Montana. Since it winters as far north as southern British Columbia and central Montana, its migrations are not extensive, and consist largely in passing from the winter home in the valleys to the breeding grounds on the high mountains. Most of the migration dates fall in the month of March.

MOUNTAIN BLUEBIRD

The Mountain Bluebird breeds north to southern Manitoba, southern Saskatchewan, Lesser Slave Lake and the upper Yukon; and winters north to central Kansas and northern California. It is one of the early spring migrants, as shown by the following dates: Northern Colorado, average, March 6, earliest, February 24, 1902; Cheyenne, Wyo., March 12, 1889; Custer City, S. D., March 17, 1897; Terry, Mont., average, March 25, earliest, March 20, 1903; Columbia Falls, Mont., average, March 23, earliest, March 9, 1895; Rathdrum, Idaho, March 1, 1903; Spokane, Wash., March 1, 1905; southern British Columbia, average, March 9, earliest, March 3, 1906; Banff, Alberta, April 2, 1903; Medicine Hat, Sask., April 6, 1894.

The latest date on which the species was seen in Los Angeles county, Cal., was March 14, 1895, and the earliest date of the return in the fall, October 31, 1897. The last birds leave southern Manitoba, on the average, October 13, the latest date being October 16, 1900. The latest date at Columbia Falls, Mont., is November 6, 1896; and in southern British Columbia, November 6, 1888.

Bird-Lore's Colored Plates

With the publication of colored figures of the Solitaire and Mountain Bluebird, the series of plates of North America Turridæ is completed. It is proposed now to take up the Flycatchers, and the first plate of this series will appear in BIRD-LORE for December.

Much time is required in the preparation of these plates, and it is necessary now to select the group which will follow the Flycatchers. We ask our readers, therefore, to write to the Editor stating their choice of the next family to be treated.

The delay in the appearance of this number of BIRD-LORE is due to unexpected difficulties in the preparation of this plate.—ED.

The Starling in America

In the last issue of BIRD-LORE (Vol. IX, p. 172) the editor called for replies to the following questions concerning the Starling (*Sturnus vulgaris*) in this country:

1. When did the Starling first appear in your vicinity?
2. What is its status now?
3. Do you consider it a desirable addition to our avifauna?
4. If undesirable, give reasons why.
5. Do you know of any Starlings, other than those released in Central Park, which have been introduced into this country?
6. Was the introduction successful?

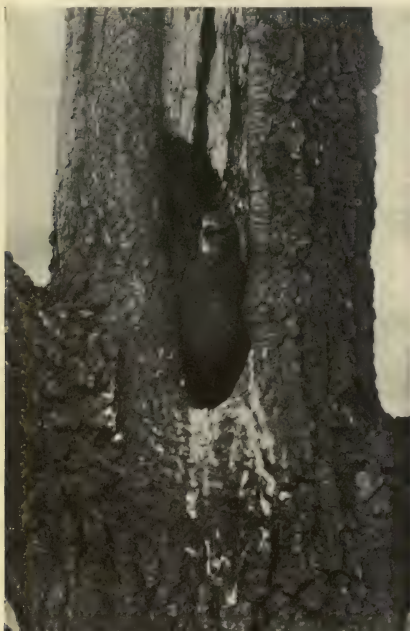
Several correspondents have responded to these questions serially, others in a general

way. All the replies are given below as a contribution to the history of this introduced species. It appears that although Starlings have been introduced at several localities in eastern North America (see the note of Mr. Morris beyond) only those birds released by the importer, William Bartels, under the direction of their purchaser, the late Mr. Eugene Schieffelin, have prospered. On May 16, 1895, Mr. Schieffelin wrote us that 80 Starlings were released in Central Park, New York City, on March 6, 1890, and that on April 25, 1891, 40 more were set free in the same place.

The city to the south, the Hudson river to the west and East River to the east proved, for a time, boundaries to range extension in those directions, and the bird spread more rapidly and more numerous northward into the country lying between the Hudson river and Long Island sound. Stonington, Conn., to the east, and Poughkeepsie and Newburgh to the north mark the known limits of the Starling's range in these directions, while to the south it seems not to be established beyond Plainfield and Morristown, N. J., although a report has been received of its presence in Baltimore in the fall of 1906.—ED.

The Introduction of the Starling at Springfield, Mass.

In the early spring of 1897 nearly one hundred Starlings were liberated in a secluded spot in Forest Park, in Springfield, Mass. The next day two of these birds returned and entered the box in which they had been confined and which had been left at the place where they were let go, undoubtedly coming back for the food that they could obtain there. From that time, for nearly a year, nothing was heard from these birds by the persons who had released them. Then it was learned that



YOUNG STARLING AT ENTRANCE TO NEST
Photographed by A. L. Princehorn, New Rochelle, N. Y.

three had wintered in the town of Long-meadow, about five miles from where they had been liberated. I saw these three birds several times, but before the middle of spring they had disappeared. About that time it was reported by a farmer that at another place nearby a Blackbird had spent the winter in the vicinity of his house. Very likely this bird was a Starling, as Blackbirds only very rarely winter in this region. The meteorological conditions of the year following the release of these birds was about normal, except that in July the rainfall was almost unprecedented, nearly fifteen inches being recorded in Springfield for the month. Since the spring of 1898, the presence of an unconfined Starling within twenty-five miles of Springfield has not been noted by any competent observer.—ROBERT O. MORRIS.

The Starling at Norwalk, Conn.

Starlings were first discovered in Norwalk in the spring of 1900 by Mr. Frank L. Hummedieu, who called my attention to them. They were first seen by me on June 10, of that year.

They first located in the extreme southeastern part of the town, but now can be found in various parts of the town, they having increased much in number.

I have heard some complaints against them but I am apt to take it with a grain of salt and have plenty of leniency for them, and believe they do much good. Whether or not they will be a desirable addition to our avifauna, depends; some think not.—GEORGE P. ELLS.

The Starling at New Haven, Conn.

1. The first bird I saw at New Haven was on October 26, 1901. I did not see the species again until 1903, and the first nest that I saw was in 1904.

2. At present the Starling is a common bird in the city and in certain localities in the surrounding country. It is increasing. In the fall of 1906 I saw a flock in the salt marshes near Woodmont, Conn., which I estimated at about 1,500 birds.

3. I do not think that the Starling is a desirable addition to our avifauna.

4. According to my observations the Starling is much more fond of hollow limbs in apple orchards, etc., than the English Sparrow and, for this reason, is liable to have more effect on the Bluebird and others than the English Sparrow has had. In feeding habits I believe that they are largely beneficial, as they eat insects both in meadows and pastures, and from the terminal twigs and bark of elm and apple trees. In spite of this, they are probably not so valuable as the Bluebirds and others that they drive away, and are, therefore, not desirable.—A. A. SAUNDERS.

The Starling at Bethel, Conn.

The Starling was first seen in Bethel during the first week in April, 1907. On April 16 I saw a pair building in the clock-tower of the Congregational church. There was a shingle off on its southwestern corner and they were bringing dry grass from a sidehill nearby to this hole. I saw them nearly every day after this for about two weeks, when they seemed to disappear entirely.—ROBERT S. JUDD.

The Starling at New Haven, Conn.

I first identified the Starling in New Haven on March 4, 1903. I had been in this city only three months at that time and, judging by the numbers then present, I think that they must have been here as early as 1901.

The Starling is very common here and seems to be well established. My daily bird record, in which I record the birds observed every day, shows that in the 218 days from January 1, 1907, to date (August 5), I have recorded the Starling 213 times, although there are other sections of the city in which it is more abundant.

Regarding their distribution, I would say that on one occasion, during the summer of 1906, Mr. Philip Buttrick, my brother, and myself observed the Starling at Stonington, Conn. Stonington is fifteen miles east of New London.

I think that nearly all Starlings raise at least two broods each year. I know of two pairs both of which have raised two broods. One of these pairs commenced the construction of their nest on April 3, and the second

brood flew July 25. I think that six is the ordinary number of young.

While the young are being raised the old birds keep very quiet. They usually go to a considerable distance for food, and they make their trips to and from the nest with great regularity. They obtain their food on lawns or, if there is one convenient, from a cow pasture. In the winter I have often seen them eat decayed apples.

About the middle of July the first flocks of Starlings appear. These flocks, I think, are largely composed of young birds of the first brood, as a large part of the old birds are still occupied with family affairs. During the fall and winter the Starlings gather in flocks.

—CLIFFORD H. PANGBURN.

The Sterling at Wethersfield, Conn.

In the spring of 1906, in Wethersfield, Conn., where I reside, I noticed a strange, dark-colored bird, with straws in its bill, flying toward an old tree with a hole in it where a branch had been sawed off. This bird was entirely new to me and for a long time I did not have a chance to observe it again. However, the following winter a flock of five or more of these birds stayed with us all through the winter months. I finally decided that without a doubt they were English Starlings; probably the first observed in this section of the state.

It is evident that at least one brood was raised, and in all probability more broods will be raised, as I observed the parent birds flying across my yard many times during the past summer and have been very much interested in their strange calls.—ALBERT MORGAN.

The Starling at Stonington and New Haven

In reply to the request for information concerning the English Starling, made in the last issue of *BIRD-LORE*, I can say that the Starling has reached New London and beyond. In July, 1906, during a three-weeks' stay at Stonington, Conn., I saw this bird twice. The first time on July 9, at a short distance outside the town; the next day in the

town itself. This time I was accompanied by Mr. D. B. Pangburn, a well-known New Haven bird student. On neither occasion was identification doubtful. Once, while passing through New London on the train, Mr. Pangburn and myself saw a Starling sitting on a telegraph wire in the railroad yards there.

I am inclined to think that the Starling is not numerous east of New Haven. At Westbrook, Conn., near the mouth of the Connecticut river, it is practically unknown. Miss B. A. Moore, a bird student who has had field experience with the bird, says that it is some years since a Starling has been seen in the town, and she doubts if there is a pair there now.

This bird was first reported from New Haven by Dr. L. B. Bishop. He discovered it on December 3, 1900, as reported in 'The Auk' (Vol. XVIII, 1901). By 1903 it had become common, and today it is, next to the English Sparrow, the most numerous and conspicuous bird in the city, and it is constantly on the increase. Starlings roost in most of the church towers, even those on the green, often in company with flocks of escaped domestic pigeons, with which they seem to get along peaceably.

I wish we could settle the question of the desirability of the Starlings by saying that they are a desirable addition to our avifauna in the cities, for there they do not come into contact with many native species, and they are certainly fully as interesting as the English Sparrow. It seems to me, however, that they seek the city largely as a place of protection from the elements, that only a small portion of their food supply is drawn from it, and that the great bulk of them nest outside of its borders.

During midday, few are seen in the city except when the ground is covered with snow. They are seldom seen on the ground or about the streets in the neighborhood of their roosts, with us. Toward dusk they appear near their roosting-places, flying from the direction of the surrounding country, singly and in flocks. At the same time of day I have stood on the hills outside the city and seen them flying toward it. At daybreak there is a reverse flight.

Near my home is a large elm tree which rises above the surrounding shade trees and has a very large, flat crown; near it is a church tower, used as a roosting-place. Late in the afternoon on winter days often as many as a hundred Starlings may be seen in this tree, altogether making a racket that may be heard several blocks. Yet I do not know of a pair breeding in the neighborhood.

These facts, together with the fact that during late summer, when few Starlings are to be found in the city, they are found in flocks on the marshes, convinces me that, economically, they must be considered with the Grackles and Red-wings, and not with the English Sparrow and a few other city dwellers, and that to arrive at an estimate of their desirability we must examine their food supply.

In Germany (see Baron Laffert in 'Forest and Stream' for March 30, 1907) they are regarded as economically valuable. It may be we shall find them a welcome addition to our avifauna.—P. L. BUTTRICK.

The Starling at New London, Conn.

The Starling has arrived in New London. On May 28, 1907, a friend came to me and wanted me to go up near her house to see a strange Blackbird. From her description I suspected it to be the Starling, which I had been looking for ever since it was reported from New Haven and Norwalk. Sure enough, it was the Starling, which I saw for the first time. There were not more than ten birds in all, and several of them were big young birds, still being fed by the old birds; so it looks as if they had come early enough for the nesting. This is their first appearance in New London, as far as I know, and I have never seen them except in that locality, so that I can not say so soon whether they are desirable or not.—FRANCES M. GRAVES.

The Starling on Staten Island, N. Y.

The early history of the Starling on Staten Island, N. Y., has already been recorded by Mr. W. P. Heineken in the 'Proceedings of the Natural Science Association of Staten Island' for February 12, 1898. The first

Starlings observed by Mr. Heineken, about twenty in number, settled in Livingston, Staten Island, in November, 1891. The following summer he found a nest in West New Brighton; and in the winter of 1892-3 the Starlings at Livingston numbered about forty. Thereafter they slowly increased; but even in 1898 Mr. Heineken knew of no others on the island than those at Livingston and West New Brighton.

Only three or four years ago, when Starlings were quite numerous throughout the northern and eastern portions of the island, they were rarely to be seen in the less populous districts. At the present time, however, they may be seen almost anywhere on the island, though they still seem to favor the vicinity of houses. During the early summer, while breeding, they are very inconspicuous, but in the autumn they wander about in large flocks.

I have never seen them attack any of our native birds, but their rapid increase is startling. I do not believe in introducing foreign birds, but, even now, I doubt if the Starling could be completely exterminated. It is a far wavier bird than the House Sparrow, and even that pest seems well able to survive the half-hearted dislike of the general public.—JAMES CHAPIN, *New Brighton, Staten Island, N. Y.*

The Starling at Orient, L. I.

Two Starlings have been observed here this spring. They were first seen on May 12, by Mr. Rufus W. Tuthill, an enthusiastic local ornithologist, who called my attention to them. They were seen almost daily through May, spending most of the time in a large cherry tree, containing an old Crow's nest, fifty yards from the highway and a trifle farther from the dwelling of Mr. Tuthill.

Orient is at the extreme end of Long Island on the north shore and one hundred miles from New York City.—ROY LATHAM.

The Starling at Morristown, N. J.

I believe that the Starling has never been seen in this locality until 1907. On March 20 I saw a flock of about twenty, and since that time until the last week in June saw one or more of them nearly every day. On June 9

I saw probably two hundred of them flying in small flocks toward some evergreens, evidently to roost, as it was near evening.

I have noticed a number of nesting-places, both in hollows in trees and under electric-light hoods.

No acts of aggression against other birds came under my notice; but one old orchard that has heretofore furnished nesting-sites for a number of Bluebirds was almost deserted by them this year, and the Starlings were in possession.—R. C. CASKEY.

The Starling at Englewood, N. J.

1. March 15, 1898, two were seen,
2. Tolerably common.
3. No.
4. They are noisy and unmusical, and, with their fondness for buildings, I think would soon become a nuisance. Moreover, when a flock takes possession of an old orchard or similar neighborhood, their rapid

increase makes it probable that Bluebirds, Wrens and other small birds would soon be driven out.

5. No.—ISABEL MCC. LEMMON.

The Starling at Plainfield, N. J.

The Starling was first noticed by me in the vicinity of Plainfield, N. J., on February 11, 1900, when I met with a flock of seven birds in Ash Swamp, Union county. Since that date they have steadily increased in numbers and are now generally distributed and common in the surrounding country.

Although the Starlings do not seem to openly annoy or drive away our native birds, there can be little doubt that their increase will have an unfavorable effect on several of our native birds that have similar nesting or feeding habits. For this reason, I would be glad to see them exterminated in this country, but greatly doubt the possibility of doing so.—W. DEW. MILLER.



BROWN THRASHER

Photographed by Henry R. Carey, Portsmouth, N. H.

Notes from Field and Study

Trapping English Sparrows

That I may not be considered heartless, let me first say that I am known as a lover of birds; but each year that adds to my acquaintance with the English Sparrows, brings my wrath against them nearer to the boiling-point.

If they only went about their own business, living their own lives, one could forgive their disagreeable, insistent noise, and even forgive the expense they entail by their depredations in the chicken-yard; but they seem to have only mean traits and, certainly, they are pleasing to neither eye nor ear.

When I hear people called tender-hearted who plead in favor of the English Sparrow, I cannot help feeling that they must live where there is a sad scarcity of our more attractive

birds. Not that I doubt their tenderness of heart, only it seems to me that they cannot have had opportunities to observe this Sparrow among communities of other birds. There may be exceptional individuals but, as a whole in my experience, the English Sparrows have really vicious natures; I know they drive away and harass other birds.

They, and of late the Starlings, have appropriated all the holes in the old apple trees, they promptly take possession of nearly every bird-box I make, or in the few cases where Bluebirds or Wrens have succeeded in starting a home, the Sparrows try to oust them; failing in this, they pester and harass them nearly to death: and this, even, when they have a home and family of their own.

From what I have seen, I believe I am justified in saying that the English Sparrows



ARTIFICIAL RUBBISH HEAP IN WHICH THE PHOTOGRAPHER WAS CONCEALED WHILE MAKING THE ACCOMPANYING PICTURES OF ENGLISH SPARROWS

Photographed by A. L. Princehorn

will neglect their young for long intervals many times a day, just to persecute other birds. I have seen them pull out nesting material from Wrens' boxes, the entrance to



which was so small that they could only get their heads in. I have seen them pull to pieces a Robin's nest only to let the material float off on the breeze. I have seen them enter Starlings' nests every time the Starlings left to get food for their young and remain only just long enough to escape detection; and the way they harass my Wrens inclines me to murderous thoughts. We are told that besides the birds of prey, Crows, Blue Jays, Grackles and even Catbirds become cannibals at times and eat little nestlings of other birds, but English Sparrows have been known to kill them and just drop them to the ground in what looks like pure wanton cruelty.

All told, the English Sparrow is a menace in too many ways to deserve considering his pro-

tection. They are dirty, noisy, quarrelsome, meddlesome and cruel. To be perfectly fair, I will say that for a couple of weeks in the spring they no doubt are a benefit to my elm

trees for they eat the little green worm that attacks the leaves; but I am very confident that were the Sparrows absent or more scarce my trees would be quite as well cared for by Warblers and Vireos,—birds that I see fewer of every year. It is the same with Song Sparrows and Bluebirds, both of which I used to have in large numbers. I fear we have got to choose between having English Sparrows with perhaps a few Robins and Grackles on the one hand and having all the other birds indigenous to the locality on the other; and as this latter choice means having perhaps fifty different varieties nesting within a stone's

throw, and all of them valuable because of the good they do, it has my vote. This means that I must rid the place of the Sparrows as far as possible. I dislike having them shot fearing some might escape instant death and get away to die slowly; so I was glad to learn of a way to trap them. The knowledge came to me by mere accident but the method seemed to work, and I give it here below.

Get some of the very large wire rat-traps, the kind that have the funnel-shaped entrance the small end of the funnel pointed inward. Sprinkle on the floor of the trap some grain or crumbs or any suitable bird-food and a little more on the ground leading to the trap. Place it where the birds will see it and if you have the luck my stable-boy had you will



have caught fifteen or twenty Sparrows in as many minutes; then they may be drowned.

It seems incredible that they will enter the trap, but I had the evidence of my own eyes and I mean to try this method late in the fall and through the coming winter; for, of course, it should be done only after the fall and before the spring migrations. A very few years of persistent work should result in bringing back many birds whose gay colors or sweet song are sadly missed or rarely seen or heard—MRS. PAUL R. BONNER, *Stamford, Conn.*

A Plea for the Sparrow

In the April number of *BIRD-LORE* I read an article condemning the much-maligned English Sparrow, stating that it drove off the Robins and other song-birds. This statement, often made, is so contrary to my own observations that I feel obliged, in justice to the Sparrows, to give my experience. Around our old home there were many trees, with a lawn in front, where the birds daily collected. In the vines covering the stone walls of the church and parish house adjoining, the Sparrows built their nests, while the others built theirs around the piazza or in trees nearby.

One morning, while in the library, I heard a frightful signal of distress from a Robin, followed instantly by a prolonged noisy chattering from the Sparrows. Hurrying out to learn the cause and to protect the birds if necessary, I saw a Robin perched on top of the parish house chimney, trailing his wings and giving a shrill cry of distress. The frightened Sparrows had flown from their nests, and settled on a beech tree in front of the house. In a few minutes a Sparrow Hawk

flew from the vines and settled on the cross of the church spire, preening his feathers, apparently oblivious to all the trouble he caused.



The Robin, however, still gave his call of alarm and the Sparrows chattered in angry protests in the tree. After a few minutes the Hawk flew away and the Robin gave him chase, joined by another bird, and soon all three were lost to sight. The Sparrows then returned to their nests and peace was restored.

Three times I think it was that the Robin warned the Sparrows of their enemy, and they always heeded his cry, leaving the vines and fleeing from them in distress to the tree on the lawn.

The Sparrows and Robins I have constantly feeding together, neither disturbing the other. Sometimes perhaps an impudent or quarrelsome fellow would jump toward a



Robin, but he would only move a short distance off and go on peacefully "grubbing."

The Sparrows' main food is so different from the worms the Robins eat that there is no reason why they should be enemies. A friend feeds the birds daily from her window, and both the Robins and Sparrows feed together on her roof. As to the farmers' objections, I find the Robins are the thieves of their cherries and strawberries; but, after all, we have plenty of our garden fruits to spare the birds their gleanings.

Instead of seeing fewer song-birds, for the last two summers, there have been more.



The Robins have returned each spring very fat and tame.

There are many trees and gardens where I am now living in Germantown, Philadelphia, and this summer before leaving, there were many beautiful birds settled for their summer abode in the trees around. The Sparrows, too, were many, but they settled their families in the vines around the house, or back of the shutters, which were not often closed. The Sparrows gleaned much of their food from the streets, while the Robins, Blackbirds and many others fed in the gardens or lawns around.

I plead for the Sparrows who stay with us all winter, through cold and ice. They are always cheery and so grateful if you cast them even a crumb which falls from your table. So trustful and sure you will not forget them, while they wait patiently in the cold, huddled together, until you have eaten your warm breakfast, only softly chirping their

knock at your front or kitchen door.—M. ELOISE RUMNEY, *Germantown, Philadelphia, Pa.*

English Sparrow Notes

In the May-June, 1905, number of BIRD-LORE (page 176), is a very interesting note "The English Sparrow as an Evictor," in which your correspondent intimates he would like to hear from the readers "who have really discouraged these pests," and experiences in the use of firearms for their extermination, "as to whether or not the shooting scared away any other birds."

In the spring of 1902, a pair of Bluebirds, after thorough inspection, began carrying building material to one of the apartments in the bird-house which is fastened to the top of the horse barn, to be immediately set upon, of course, by a pair of English Sparrows, and ousted after an unequal fight. Thereupon the lordly cock Sparrow settled himself before the disputed door and began his impudent yelping, to the evident chagrin of the crestfallen Bluebirds and the raising of my ire, for seizing my brother's 22-calibre Winchester repeater, I carefully concealed myself, fully determined to teach that Sparrow a lesson if possible, to give him one good scare at least. A few flying feathers was the only tangible result of the light report of the rifle, plus the sudden ceasing of the yelps. Returning the rifle to its accustomed place, I brought out the glasses and discovered the body of the braggart on the shelf where he had stood and fallen.

With considerable wonder as to whether or not the Bluebirds would take offense at the use of a gun in their nearby presence, I kept a keen lookout and was soon gratified to see the pair working their way slowly back to their rightful possessions,—alighting on the barn, on the weather-vane of the bird-house, and all the time warbling to each other in their soft, pretty voices. Finally the male became bolder and flew down to the shelf on which lay his dead enemy, eyeing the body askance, hopped nearer, and finally shoved the body over the edge where it fell to the ground below and I picked it up, still warm.

Then the Bluebirds engaged in such a hallelujah as I never witnessed before and

only once since, the entire family of us watching the proceedings with much interest from the time the shot was fired. The birds sang and warbled, made ecstatic little gyrations in the air and hopped around in the grass not fifteen feet from the door where we were watching them, warbling over and over again their soft notes, the beautiful blue of their plumage fairly scintillating in the sun. The next day both birds—I suppose the same pair—were carrying materials to the bird-house.

In a day or two another pair of Sparrows drove away the Bluebirds with exactly the same result as happened to cock number one, and with exactly the same happy evolutions of Bluebirds, even to the male pushing or knocking the dead Sparrow over the edge to the earth below. This time the Bluebirds were left in peace and happily reared their brood in the bird-house.

This year a pair of Bluebirds nested early in the same bird-house; Chipping Sparrows in a large gooseberry bush not fifteen feet from the back of the house, and Robins under an outside stairway of the shop. These nests, aside from the Bluebirds, were inspected daily and the Chippy's was photographed once. About this time a cloud of English Sparrows settled down and, as usual, my brother began shooting them with his .22 rifle. I have repeatedly watched these nests by turns as he aimed, and have never seen a bird fly therefrom at the light report of the rifle. Both the Bluebirds and Chipping Sparrows are now nesting for the second time on or near the first sites.

This is only one or two years' experience out of seven or eight, during which time my brother and self have used the 22-caliber (never a shot-gun) effectively and effectually until either of us appearing anywhere in sight has been the signal for a general flight of Sparrows, they finally leaving for good and all for months at a time. Meanwhile all the other birds are confiding and fearless, and abound in great numbers around the house.

—LELIA E. HONSINGER, *St. Albans, Vt.*

English Sparrow Notes

In the May-June, 1905, issue of BIRD-LORE, Mr. F. M. Bennet's account of his

English Sparrow troubles is of more than ordinary interest to me, for my own experiences with this pest have been strangely similar. His description of the actions of these Sparrows toward the "respectable" birds illustrates splendidly the way my English Sparrows have done. I, too, have bird-boxes, and my Bluebirds had a hard time indeed until I relieved them.

Perhaps a brief account of my experiences will be welcomed by other bird-lovers, whose bird-boxes are infested with these pests. My plan for exterminating the English Sparrows is simple, but is better than it sounds. I simply shoot from the house, through a window slightly raised, every English Sparrow that comes to a bird-box. As I do not thrust the muzzle out of the window, very little noise is heard outside and the birds are not disturbed,—except, of course, the stricken Sparrow. I use a 38-caliber auxiliary barrel inside of my shot-gun, the shells being charged with smokeless powder and dust-shot; but, of course, any rifle or gun with a similar charge would do.

Now, one might say that all bird-boxes cannot be reached from a window, and indeed I have several times shot Sparrows from outdoors from necessity. And I can say this truthfully: the bang of the rifle did not frighten my Bluebirds or Tree Swallows in the least. They even seemed to appreciate the service I was doing them. In one case, an English Sparrow expelled a Tree Swallow from one of the boxes, and sat uttering its disgusting notes at the door. The Swallow lit in a nearby tree. From outdoors I shot the English Sparrow, which fell to the ground. Almost immediately the Swallow, with a joyful twitter, was on the grass by the dead Sparrow, surveying it quizzically from all sides; then it entered its own home in peace. I give this incident more as a noteworthy happening in bird-life than as an illustration of "how Tree Swallows regard the bang of a gun," however; yet, as I said, my Bluebirds and Swallows seem to know my good intent towards them while, on the other hand, I now take pride in the fact that the English Sparrows in my yard have become as wild as Hawks, and fly at the mere rattling of a window-sash.

I certainly should not recommend Sparrow-shooting to readers of BIRD-LORE if my own experiments in doing so had not proved highly satisfactory as they have; for this year I have had the pleasure of recording, in my yard, more birds than ever before, and several *never* seen there before; while the nests, built all within twenty feet of the house, show that the birds trust in us for their protection. Let the following "nest-record" speak for itself:

One Song Sparrow's nest and four young, in shrubbery eight feet from our front steps; one Chippy's nest in front-piazza vine, just built; two Bluebirds' nests in boxes, one pair just raising second brood; one Yellow Warbler's nest with young in bush; one Tree Swallow's nest and eggs in box, five feet from ground and near our parlor window, and one Robin's nest and eggs on top of same box. And I have killed no less than a score of English Sparrows on these boxes since early spring! And my Swallows are so tame that I can stand within a yard of them without any uneasiness on their part.—RICHARD M. HUNT, *Winchester, Mass.*

An Attractive Visitor

On the ninth of May a friend gave me a female Blackburnian Warbler which had evidently been stunned in some way, as it was lying with closed eyes when found. When the exquisite little orange-throated creature came into my possession she had greatly improved and could fly about again. I brought her home with me and placed her in my room until after supper when I attempted to find some insects with which to try to tempt her appetite. Three circumstances greatly hindered my success in this laudable undertaking. In the first place, it was growing dusk. In the second place, the season was but little advanced and the evening cool, and in the third place, I am not related to the family Tyrannidae. However, I procured a few specimens and attempted to feed my little friend, but she refused to eat a mouthful. I picked up my orange stick and found that the mite's feet would close around it beautifully. After a little I walked carefully to my bureau and shut the sharpened end of the orange stick in one of the drawers. I left the room, and

when I returned later with the light I found the tiny traveler still on the stick with her head tucked carefully under her wing and resembling a dainty pompon, save for the almost imperceptible rising and falling of the little breast. Later she roused a little and I put out the light, fearing she would become frightened and fly about the room. A few



A VISITING BLACKBURNIAN WARBLER
Photographed from nature

moments later I lighted a match and found that my guest had again tucked the head under and was settled for the night. In the morning she was still sitting on her perch but later began to fly about the room. I placed a fly on the rubber tip of my fencing foil and slowly raised it toward her as she sat on a picture-frame, but she still scorned my advances. I climbed on a chair and placed a fly on the picture-frame and on her return she cocked her head and eyed it with interest. The next time she came I was overjoyed to see her snap up the little fly. I found a sunny

place in the garden where I was able to catch some flies, and a good part of my morning was spent in this humble occupation. The little stranger soon concluded that I served up a fairly acceptable class of delicatessen, and, waiving formality, sat upon my hand and ate flies by the wholesale. I put my face down close to the exquisite mite, but found her so apparently interested in my eyes that I had to keep them partly closed for fear of the sharp little beak. Perhaps she was fascinated by seeing the reflection of her dainty self. I introduced her to the dining-room bay-window, filled with house plants, and here she was indeed happy, for she hopped from plant to plant, picking up insects and larvæ by the dozen. She had many callers during her short stay with me, but seemed to care little how many people were about her. Early in the afternoon I caught the tiny morsel, placed her on a spray of alder and photographed her. But pictures are so inadequate to her coloring and grace that they seem almost sacrilegious. In the early afternoon I gave her her freedom, leaving her time to get her bearings before dark, and I may always think as I look upon one of these brightest gleams in our migrating throng, "perhaps it's my beautiful little friend."—MARY PIERSON ALLEN, *Hackettstown, N. J.*

The Skylark (*Alauda arvensis*) on Long Island

About mid-June, while passing a vacant field in Flatbush, Greater New York, my attention was arrested by the flight song of a Skylark. The bird was above this vacant lot and continued to rise and poise in the manner so described. It remained in the air for at least five minutes, singing continually, or until I walked some distance away. Then it descended in zigzag fashion to a point near the center of the field. Thinking it might have alighted near a nest, I carefully marked the spot and walked rapidly over to it. I flushed the bird at about the point I expected, but a systematic search failed to discover a nest or flush another bird. When the bird was flushed it again rose in song flight. Another bird was seen in a nearby field.

On August 30, 1907, I went to the same

place for the purpose of investigating the status of the Skylark in that locality. In the same field where the bird was found in June one was flushed, but it merely flew away much after the manner of a Horned Lark, no song was heard and no other bird was seen. I enquired about the bird at the office of a real estate dealer nearby and was referred to an intelligent ex-farmer living in the vicinity. This gentleman said that the bird was a regular but not abundant permanent resident, equally common in winter and summer; that about eight years before while farming in that section, he found a nest and four young, and he did not believe that the birds had increased in numbers since that time. He estimated that there were not more than thirty birds in a radius of a mile in that section. In two fields in front of his place he thinks that the birds now breed and says that in the early evenings they rise in flight song above these fields. Of course the song is heard only during a period covering the breeding season and a short time prior to and following it. During the rest of the year, the birds are comparatively silent and inconspicuous. For the failure to increase in numbers this gentleman could suggest no cause.—B. S. BOWDISH, *New York City.*

Horned Lark Breeding in Connecticut

In the July-August BIRD-LORE there is published an unsigned article on the Prairie-Horned Lark in Connecticut. As the writer, who is a friend of mine, is away from home and will not see this article until his return in a month or two, I take the liberty of replying to your request for his name. The writer is Mr. Albert W. Honywill, Jr. I was with Mr. Honywill for a time and also saw the Larks. On May 30, this year, my friend and I went with Dr. L. B. Bishop to Washington, Conn., and although we went over all the ground, were unable to find any Larks. Several people, who had become acquainted with the Larks in 1906, said that they had not seen any this year. However, we heard an account of a nest and young which was undoubtedly that of a Horned Lark.

We found the Bartramian Sandpiper on May 30.—C. A. PANGBURN.



WHITE-BREASTED NUTHATCH AND SUET. NOTE THE GRASP OF THE BIRD'S EXTENDED FOOT

A Friendly Nuthatch

Last winter I kept a lunch-counter for the birds just outside a window of my room. It was visited by several different species of

fearlessly. After eating a few pieces he invariably took one and flew to a nearby tree, where he hid it in a crevice in the bark.

Later in the winter, the Nuthatch hopped upon my arm, and even upon the top of my

birds, but the most frequent patrons were the White-breasted Nuthatches. They ate everything from cracked corn to suet, but seemed particularly fond of walnut meats. I took advantage of this and, after the birds had become accustomed to my presence at the window, tried feeding them from my hand. One little fellow became much tamer than the rest and after a few days of training he hopped upon my hand and fed quite



WHITE-BREASTED NUTHATCH AT WINDOW FEEDING TRAY

head, and took food I had placed there. He found it great sport to come into my room and feed from piles of food on the window-sill, and also from my hand. One day he took another hop towards civilization,—he flew from the window-sill to my dresser and ate from a lump of suet I had placed there. After feeding a while, he gave an indignant glance at his image in the looking-glass, and flew out of the window with a piece of food in his bill. He even took food from a chair set a few feet from the window and, at the request to "look pleasant" in the form of a sharp whistle, posed for his picture several times. He apparently paid no attention to the glaring face of the camera only two feet away. My room was now being converted into a photographic studio, but all my customers came in through the window!

When out in the yard, the Nuthatch would

fly down and eat from the top of my head. He also would come down the tree trunk and feed from my hand. I took some pictures of him doing this, pressing the bulb with my other hand. (When I was feeding the Nuthatch, with nothing between me and the bird, I could not help but think of BIRD-LORE's motto, but must confess that I thought for the time being that "A bird in the *hand* is worth two in the *bush*.")

These little experiences which I had with the Nuthatch, go to show what can be done with a wild bird when its confidence is won. I won the confidence of Teddy (as we called him), and he knew that he would not be harmed or even frightened if he came near me, and therefore he came into my room and fed from my hand with very little fear. Teddy was a friend whom I shall never forget.—
EDWIN C. BROWN. *Minneapolis, Minn.*



A SELF-SUPPLYING LUNCH-COUNTER

Book News and Reviews

THE BIRDS OF IOWA. By RUDOLPH MARTIN ANDERSON, Proc. Davenport Academy Sciences, xi, 1906, pp. 125-388.

Familiarity with the literature of his subject, access to pertinent collections, the coöperation of other workers, and an extended personal field experience, combined with an evident grasp of his thesis, have enabled Mr. Anderson to produce an admirable treatise on Iowa birds.

An introduction of twenty pages contains sections entitled 'Scope,' 'Historical Work,' 'Relative Abundance,' 'Breeding,' 'Food,' 'Migration,' 'Range in Iowa,' 'Topography of Iowa,' 'Climate of Iowa,' 'Faunal Areas,' and 'Contributors.' We wish that there had also been included here some discussion of the changes which have occurred in the character of the Iowa ornis incident to the tillage of prairies, drainage of sloughs, planting of trees and increase of population. In this connection, we may also suggest the desirability of placing in a separate list those species which have become extinct in Iowa.

Mr. Anderson is commendably conservative in admitting birds to his list of 353 species; capture within the state and satisfactory identification being the entrance conditions imposed.

The annotations under each species relate, in the main, to the bird's distribution, relative abundance and season of occurrence, liberal quotations from the earlier writers affording material for comparison with the notes of recent observers. There are also remarks on habits which, in the case of breeding species, often include much interesting biographical matter.—F. M. C.

CASSINIA. Proc. of the Delaware Valley Ornithological Club, x, 1906. 8vo. 76 pages, 2 plates.

There are evidently certain conditions in and about Philadelphia favorable to the development of ornithological endeavor. Whether Alexander Wilson was stimulated by them, or whether the 'Father of American Ornithology' created and willed them to his

scientific descendants in the valley of the Delaware, we do not pretend to say, but each year when Cassinia comes to us as a material evidence of the continued activity in organized bird study about Philadelphia, we wonder why such a well-directed interest cannot be aroused and maintained elsewhere.

Fifty observers, for example, sent in schedules covering the 1906 migration, and the editor, Mr. Stone, remarks of the work thus far done by the "migration corps" of the D. V. O. C.: "It is doubtful if such an accurate and comprehensive series of data has ever been collected over such a limited area anywhere in America . . ."

In addition to a report on the results of this coöperative migration work, and an abstract of the proceedings at the meetings of the Club during 1906, this volume contains papers on 'William Bartram,' by George Spencer Morris (with two plates); 'A Study of the Solitary Vireo,' by Cornelius Weygandt; 'Summer Birds of Western Pike County, Pennsylvania,' by Richard C. Harlow; 'The Concordville Robin and Grackle Roost,' by Samuel C. Palmer; 'A June Trip to Pocono Lake, Monroe County, Pennsylvania,' by John D. Carter; and 'Winter Bird-life in the Pocono Mountains, Pennsylvania,' by William L. Bailey.—F. M. C.

BIRDS OF LABRADOR. By CHARLES W. TOWNSEND, M.D., and GLOVER M. ALLEN, Proc. Boston Society Nat. Hist., Vol. 33, pp. 277-428, pl. 29.

A summer on the Labrador coast gave the authors of this paper an opportunity to become acquainted with the more significant characteristics of the avifauna of the region and, at the same time, gave them that interested and discriminating point of view which only personal experience creates. Hence, we have here, not alone, some exceptionally good biographical material based on original observation—and in passing we commend this paper to young ornithologists as an illustration of how much may be seen in a brief period if one is determined to make the best use of one's opportunities,—but a critical

resumé of all that has been previously published in regard to Labrador birds. The result is a copiously annotated list of 213 "authenticated," 2 "extinct" and 44 "doubtful and erroneous species."

Introductory sections on 'Topography,' 'Faunal Areas,' 'Migration,' 'Ornithological History—Ornithologists,' 'Bird and Egg Destruction,' supply much general information.

While the actual number of specimens collected was small, they proved to be of special value showing, among other things, that the Prairie Horned Lark has no status as a Labrador bird, *Otocoris alpestris alpestris* being apparently the only form of the group occurring in this region.

An unusual feature of this paper is a census of the approximate number of individuals of species of birds seen at stated localities.—F. M. C.

ALONG THE LABRADOR COAST. By CHARLES WENDELL TOWNSEND, M.D., with illustrations from Photographs and a Map, Boston, Dana Estes & Co., 1907. 12mo. xii + 289 pages. 40 half-tones, 1 map.

This book admirably supplements the paper on Labrador birds by its author and Glover M. Allen, reviewed above. It is the story of the summer cruise along the Labrador coast, during which was gathered the material on which the more technical paper is based. Each work has its place, and each appeals to its own audience, but in reading the two together one is impressed by the comparative absence of repetition and consequently realizes how much of the story of the expedition would have been left untold if the present work had remained unpublished.

Here we have a continuous narrative, in which with no effort at "fine writing," the Labrador coast and its inhabitants, human as well as avian, is brought very clearly before us. We wish there were more books of this kind, and if every traveling ornithologist could tell his story as simply and as pleasantly as Dr. Townsend relates his, our supply of readable and informing nature literature would be acceptably increased.—F. M. C.

The Ornithological Magazines

THE AUK.—In the 128 pages of the July number there is much to attract the general reader as well as other matters that will more particularly please the student of ornithology. The first instalment of an exhaustive local list of 'The Birds of Custer and Dawson Counties, Montana,' by Mr. E. S. Cameron, is finely illustrated by photographs of the country and is accompanied by two maps. The third instalment of Messrs. Beyer, Allison and Kopman's 'List of the Birds of Louisiana,' will be found on later pages. The Rev. P. B. Peabody writes pleasantly of his experiences with 'The Crossbills of Northeastern Wyoming,' where he found these nomadic birds nesting in mid-winter. A mop-stick proved a successful, though uncertain weapon for securing specimens of the birds. Fledglings and a nest were obtained. Mr. A. H. Clark gives us a glimpse of 'Characteristic Kamchatkan Birds;' Mr. J. T. Ferry has something to tell us about the winter birds of southern Illinois, and Mr. J. C. Wood writes about the autumn migration of Warblers near Detroit.

More technical articles are one by Mr. O. Bangs on birds of Costa Rica, one on a hybrid Humming-bird by Messrs. Bangs and J. E. Thayer, and one on a new *Agelaius* from Canada by Mr. H. C. Oberholser. Mr. Bangs describes two new species and five new races, but what comes nearer home to most readers of BIRD-LORE is the separation by Mr. Oberholser of the Red-winged Blackbird of the Canadian Northwest under the subspecific name of *arctolegus*. This is still another of the millimeter races, differing from its nearest ally, according to its describer's own figures, about 5 per cent in dimensions and nothing in plumage. Inasmuch as the Red-wing is already split into so many races that even experts do not agree as to what name to call a given specimen, this latest 'split' in a much worked-over—if not over-worked—species is not a welcome guest.

An obituary notice of Professor Alfred Newton marks the passing of an old-time ornithologist of note.—J. D., Jr.

THE CONDOR.—In the leading article of the July number of 'The Condor,' entitled 'The Grebes of Southern Oregon,' Finley gives an interesting account of the habits of the Western and American Eared Grebes and calls attention to the ruthless manner in which the birds have been destroyed for the millinery trade. Five illustrations from photographs by Bohlman show the old birds, the young and the nests. One figure shows clearly the curious habit the old birds have of carrying the chicks on their backs. 'Nesting Habits of *Phainopepla nitens*,' by Harriet Williams Myers, contains the results of some observations of these interesting birds made near Garvanza, in the vicinity of Los Angeles.

A brief, but important, illustrated article on 'The Thick-billed Parrot in Arizona' is contributed by Austin Paul Smith, who states that a flock of Parrots estimated at 700 or 1,000 was observed in the Chiricahua Mountains in August, 1904. He expresses the opinion that the birds are "not nearly as casual as supposed." 'Summer Birds of a Prairie Lake,' by G. Willet, is an account of collecting experiences in northeastern Montana in 1903. Under the title 'Measuring a Condor,' M. French Gilman gives notes on several California Condors seen near Werner Ranch and San Jacinto Peak in San Diego county, and near Bear Valley in San Bernardino county. The specimen measured had an expanse of nine feet, ten and one-half inches. Finley adds some brief 'English Sparrow Notes' illustrated by a photograph of a Sparrow's nest built inside of a hornet's nest. Among the short notes 'From Field and Study,' Torrey records the Vermilion Flycatchers at Santa Barbara, California; Beck adds several species to the list of birds known from Clipperton and Cocos Islands; Finley records the Magnolia Warbler from Salem, Oregon; and Felger the Prothonotary Warbler from Colorado.

The 'Directory of the Cooper Ornithological Club,' published in this number, shows that the Club has two honorary and 229 active members, and has lost seventeen members by death.—T. S. P.

THE WILSON BULLETIN.—Four numbers of the 'Wilson Bulletin' have appeared since

the journal was last noticed in these columns. They are filled with the usual annotated lists and popular sketches of bird-life.

The September, 1906, number contains a short sketch of the birds of Clayton county, Iowa, by A. R. Sherman, an annotated list of common birds of Whittier, California, by E. Craigmile, based on six months' observation—far too short a time to warrant publication for a region so well known—'A Purple Martin Roost,' by P. A. Taverner; 'A Glimpse of the Birds of Second Lake, Coos county, N. H., by C. H. Rogers; 'August Days with the Birds,' by L. Jones,—locality not mentioned—and 'Two Days with Beach Birds and Botanists' at Stone Harbor, N. J., by C. J. Hunt.

In the December number J. Henderson describes the birds observed on a trip through northeastern Colorado; the editor presents an anonymous list of 'Birds of Cleveland, Ohio,' which had perhaps better have been preserved in manuscript until something could be learned of the author; F. H. Hall writes of 'Some Western Adirondack Birds,' and L. Jones on 'Some Migration Records in Cedar Point, Erie County, Ohio.'

In the March, 1907, number, W. F. Henninger writes at length on the 'Paradise of Germany;' G. C. Fisher describes the 'Nesting of Bald Eagles at Lewistown, Ohio;' and C. J. Hunt gives a list of 'August Birds of Lake Sebago, Maine,' with a description of the locality. A list of 'Birds of Summit, N. J.,' by the late L. K. Holmes, is published and *Larus franklinii* and *Ammodramus lecontei* are added to the Ohio list.

The issue for June contains the first instalment of an important paper on 'Birds of Point Pelée,' by P. A. Taverner and B. H. Swales, which promises to be one of our best contributions to the bird-life of the Great Lakes.—O. Widmann discusses 'Spring Migration Anomalies in 1907,' a subject which we trust may receive further attention from observers elsewhere. Other papers are 'Notes on the Broad-winged Hawk,' by R. W. Shufeldt; 'Our Bird Bath,' by C. F. Schautz; 'Ruby-throats,' by C. J. Hunt, and 'Walter J. Hoxie,' by F. L. Burns.

Numerous short notes appear as usual in each number of the Bulletin.—W. S.

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Edited by FRANK M. CHAPMAN

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Bird-Lore's Motto:

A Bird in the Bush is Worth Two in the Hand

THE annual meeting of the National Association of Audubon Societies, to be held at the American Museum of Natural History on October 29, should be well attended. The Association's increased income has permitted it greatly to broaden its field of activities, and with its allied State Societies, it is now not alone the most effective organized protector of wild life, but through its work in disseminating good, sound, popular ornithological literature to the schools, it exerts a profound influence on the future of ornithology in this country. Numerous possibilities for development present themselves and their discussion at the annual meeting is greatly to be desired.

COMPARISON of conditions prevailing in this country with those which exist in Italy, as they are revealed by Professor Herrick's paper, concluded in this number of BIRD-LORE, should give all Americans cause for special thanksgiving. In other phases of ornithology—the study of migration, of geographical distribution, and of climatic variation—American ornithologists, as is well known, are more advantageously situated than their brethren of the continents, where smaller political divisions do not beget the coöperation and unity of interests which are found in this country.

Uniformity of law is one of the fundamentals of adequate bird protection. While with us the passage of the Model Law, by most of the states in the Union, has gone far toward making the laws effective in their primary intent,

the ideal condition will not be reached until we have a Federal law such as Mr. George Shiras, 3d, has proposed, placing the framing and enforcement of all laws relating to migratory birds in the hands of the Federal government.

In Europe the attitude of Italy well-nigh renders the whole case hopeless. At the International Convention for the Protection of Birds, held in Paris in 1902, Italy's delegate was instructed to sign no "binding schedule," and her refusal to coöperate with the other countries represented was emphasized by her further statement that "no agreement refused by Italy could be of any advantage to Hungary or Austria." Not only is the enormous destruction of bird-life in Italy to be deplored, but the fact that Italy is a migratory highway over which the birds of a large part of Europe travel in their journeys to and from Africa discourages attempts to protect these birds in their more northern summer homes.

It is unfortunate that the attempt to form an ornithological section of the International Zoological Congress held in Boston, August 19-24, 1907, was undertaken at too late a date to permit of proper organization, for that there was no lack of interest in the subject, was evinced by the number of papers on birds presented before the Congress, as will be seen by the following titles: 'A Comparative Study of Birds with Respect to Intelligence and Imitation,' J. P. Porter; 'The Influence of Domestication on the Behavior of the Ostrich,' J. E. Duerden; 'Organization of the Gull Community: A Study of the Communal Life of Birds,' F. H. Herrick; 'A Statistical Study of the Local Distribution and Ecology of Birds,' S. A. Forbes; 'Geographic Variation in Birds, with Special Reference to Humidity,' C. W. Beebe; 'Remarks on the Geographical Origin of North American Birds,' Frank M. Chapman.

IN republishing several of the photographs illustrating Schilling's 'Flashlights from the Jungle,' the National Geographic Magazine calls attention to the fact that the flashlight apparatus employed by Schilling was invented by George Shiras, 3rd, the pioneer in the flashlight photography of wild animals.

The Audubon Societies

SCHOOL DEPARTMENT

Edited by MABEL OSGOOD WRIGHT

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OCTOBER AND PREPARATIONS FOR WINTER



If you have not already settled the location for your lunch-counter, and begun to spread it with tempting tid-bits, you should do so at once.

Whatever form this table may take, either a partly roofed shelf surrounding a tree, a bracket against the side of the house, or merely an extension to the window sill, it should be made of

weathered wood and be wholly free from the taint of new paint.

Birds love the old and are distrustful of the new and glittering. It is a good plan, when time serves, to make a collection of old boards or mossy shingles, that are so often discarded when old buildings are repaired, and keep them ready; for there is nothing better than such material either for birds' houses or feeding-boxes.

Also, do not wait until the natural food-supply is cut off, and most of the birds have gone, before you offer them daily rations; for the fact that food lies close at hand may win for you many winter friends that otherwise would pass on. Hungry birds will eat many things that do not belong strictly to bird diet, but two articles I have found will suffice for all species, and gray squirrels as well, if you have any in the neighborhood,—suet in good-sized lumps that will not be torn to shreds too soon for the Woodpeckers and all other tree-trunk climbing birds, and any one of the various dog-biscuits broken into pieces of various sizes, ranging from that of a chestnut, which Jays and Nuthatches love to pound up to suit their taste, to crumbs that tempt the Junco, Tree Sparrow, Purple Finch, Snowflake, and even the Robin and Bluebird. As for the Chickadee, bless his brave little heart! he will take both meat and bread and nod you thanks between courses.

The suet may remain on the counter until it is consumed, but be careful to put only enough of the biscuit out each morning for the day's use, as, if it becomes water-soaked and lacks crispness, it not only loses its seed-like quality and ceases to be tempting, but is unwholesome for birds accustomed to digest either dry seeds or juicy fruits but not pulpaceous masses.—M. O. W.

THE PURPLE FINCH

By MABEL OSGOOD WRIGHT

The National Association of Audubon Societies

EDUCATIONAL LEAFLET NO. 28

The family of Sparrows and Finches, like that of the Warblers, Blackbirds and Orioles, offers such an infinite variety of species and disports so many contradictory fashions in the cut of beaks and tinting of plumage that when we have even a bowing acquaintance with it we feel that we have really entered the realm of bird knowledge.

In addition to its rarity, family *Fringillidae* is the largest of all
His Family bird families, numbering some five hundred and fifty species, that inhabit all parts of the world except Australia.

The one point that binds them together which the untrained may discover is the stout bill, conical in shape with great power for seed-crushing. For, first and last, all of the tribe are seed-eaters, and though in the nesting season much animal food is eaten by adults as well as fed to the young, and tree-buds and fruits are also relished, the tribe of Finches and Sparrows can live well upon seeds—seeds of weeds, the seeds concealed between the scales of pine-cones and the pulp-enveloped seeds of wild fruits that are called berries.

This ability to pick a living at any season of the year that the seeded weeds of waste fields and roadsides are uncovered makes what are called “permanent residents” of many species of Sparrows, and causes them, when they migrate, to still keep to a more restricted circle than their insect-eating brethren. Also, alas! this seed-eating quality, coupled with beauty of plumage and voice, has made them favorite cage-birds the world over. Happily, freedom has now come to them in this country, together with all our birds, and as far as the law may protect them they are safe, though the latest reports say that small consignments of Mockingbirds and Cardinals are still smuggled over seas by way of Hamburg.

Run over the list of prominent members of the *Fringillidae*, or family of Finches and Sparrows. Call them by memory if you can; if not, take a book and look them up.

The Sparrows are clad in shades of brown more or less streaked, and their dull colors protect them amid the grasses in which they feed and lodge. The birds of brighter plumage are obliged to look out for themselves, as it were, and keep nearer the sky, where their colors are lost in the blaze of light.

First to be remembered are the birds that wear more or less
Colors of red,—the Cardinal, the Rose-breasted Grosbeak, the Redpolls,
Finches Crossbills, the Pine Grosbeak and the Purple Finch (who is no more purple than he is blue or yellow).

Then come three birds who would seem original and striking in any family—the Indigo Bunting, the southern Blue Grosbeak and the beautiful Painted Bunting or Nonpareil, gay in blue, gold, red and green plumes.

Red and blue—then yellow must follow as a natural sequence, to complete the primary colors. It is a fact, in the floral kingdom, that the three primary colors never exist naturally without artificial hybridization in one family; thus, there are red and yellow roses, but no blue; red and blue verbenas, but no yellow, and so on.

In the Sparrow family, however, we have the three primary colors in all their purity,—the American Goldfinch clad in pure gold and the Dickcissel of the yellow breast, together with the yellow wing and tail marks of the Pine Siskin, supplying the third color. The Towhee Bunting stands alone, a blending of brilliant black above, white below, with chestnut sides and red eyes. The Chippy, Song and Field Sparrows are typical of the color-protective family type. The white outer tail quills are an index to the Vesper Sparrow; the same white quills and a white vest name the Slate-colored Junco. The White-throated Sparrow has his name plainly printed under his beak, and the White-crowned Sparrow writes his in his white head-stripe, while the rusty brown Fox Sparrow is known both by size and color.

The Purple Finch, which, as I have said, is not purple, but, when in full plumage, washed with a rich raspberry-red, deepest on breast, crown and rump, light breast, brownish back, wings and tail, is one of the notable members of the family. Its bill is heavy and round, approaching in size those of the Grosbeaks, while in body it ranks with Song and House Sparrows. Besides having a heavy bill that suggests the Grosbeak, it has a way of bristling the feathers of its crown that sometimes gives it the aggressive mien of the Cardinal; while its clinking call-note and way of flying in scattered flocks, and the fact that it is with us in winter, cause it to be sometimes mistaken in the distance for one of the Crossbills.

One would think that, with its rich coloring and the fact that it is a winter resident in many parts of its range, this finch would be a well-known bird; yet many people who have a fair knowledge of our common birds do not seem to know it. Perhaps this is because the females and immature birds, wearing gray and brown stripes, look so very much like their Sparrow kin that the rosy-vested bird that sings in the trees, where his colors cannot be seen unless you are directly under him, escapes unnoticed. The change of the young male Finch from his northern plain garb to the full crimson costume is interesting as it is deliberate, taking two seasons, the rosy flush not appearing until the end of the second year.

The range of the Purple, or Crimson Finch, as I wish that the **His Range** Wise Men would agree to call him, is eastern North America. The nesting season is spent from Minnesota and the Middle States northward, and the winter from the borders of the northern States southward to the Gulf. Its choice of a nesting location is very wide, for, like the Catbird, it is equally at home in unfrequented and brushy woodlands, and on the borders of home gardens where people are constantly present.

In spite of his unique plumage, it is for his song that this bird has won renown, and it is by his song that he is most readily to be identified. To hear this in its perfection, one must listen for it in May and June; for this Finch has not the enduring vocal qualities that endear his cousin, the Song Sparrow, and give us the perpetual hope that we may hear his voice in every month of the year,—a hope that is usually fulfilled. The Finches that have wintered with us begin to warble a little in late March, and the same partial song may be heard in October, after the molt; but the song that suddenly bursts into exuberance, rendering him one of our most conspicuous songsters and recalling many notes of the English Chaffinch, belongs to the nesting season.

It is almost impossible to render the song of a bird in syllables so that it appeals to any number of people; for, as bird music is phrased according to the natural, not the artificial key that we associate with annotation, its translation is a matter of mood, temperament and accord between imagination and ear. To me, when the voice of the Crimson Finch bursts forth in sudden joyousness, it cries, "List to me, list to me, hear me, and I'll tell you,—you, you!" There must be, however, some similarity between these syllables and the song, because more than once, on endeavoring to name a curiously described bird that I suspected might be this Finch, the rapid whispering of these words has completed the clue, by the inquirers exclaiming—"Yes, that is the way the song went." Yet, do the best we can to suggest rhythm of the song, the music of it belongs to the woods and fields, the sky and sun, from which we may not separate it. Forbush says of it: "The song of the male is a sudden, joyous burst of melody, vigorous, but clear and pure, to which no mere words can do justice. When, filled with ecstasy, he mounts in air and hangs with fluttering wings above the tree where sits the one who holds his affections, his efforts far transcend his ordinary tones, and a continuous melody flows forth, until, exhausted with his vocal effort, he sinks to the level of his spouse in the tree-top."

These Finches travel at times in flocks and are at all times somewhat gregarious, and this trait has made them an easy prey for bird-catchers, and Mr. Forbush tells us that, "If a bird of this species is confined in a trap-cage in spring and exposed in a conspicuous place, most of the Purple Finches in the neighborhood may be trapped. The greater part of the so-called 'Linnets' in many localities have been taken in this way, despite the law and its officers, who are on the lookout for the law-breakers. The birds have been sold in the bird stores or sent to Europe as red or gray Linnets. This may account for a local scarcity of this Finch in some places where it was formerly common."

The Purple Finch, though, like many others, it hunts for succulent food, apple and cherry blossoms in the spring, has a decided economic value; for, the season through, it feeds upon orchard and woodland caterpillars, lice, cankerworms, and when these are out of date it consumes quantities of the seeds of injurious plants, including the noxious ragweed.

His Song

His Food

Wilson (1829) devotes some space to a description of his experience with these Finches as caged birds, showing that they have been captives these many years: "The Purple Finches fly at a considerable height in the air, and their note is a single chink, like that of the rice bird. They possess great boldness and spirit and, when caught, bite violently and hang by the bill from your hand, striking with great fury; but they are soon reconciled to confinement and in a day or two are quite at home. I kept a pair of these birds upward of nine months, to observe their manners. Both are now as familiar as if brought up by hand from the nest, and seem to prefer hemp seed and cherry blossoms to all other food. Both male and female, though not crested, are almost constantly in the habit of erecting the feathers of their crown. . . . They are a hardy and vigorous bird. . . . When these birds are taken in their crimson dress, and kept in a cage until they molt their feathers, they uniformly change their appearance and sometimes never after regain their red color. . . . They are also subject, if well fed, to become so fat as literally to die of corpulency, being at these times subject to something resembling apoplexy, from which they sometimes recover in a few minutes, but oftener expire in the same space of time.

The moral of this being that even a hardy Finch, when caged, becomes abnormal and should be granted the same liberty as the Cardinal, Mockers, and all the rest. Wilson says that the pair he caged were reconciled to confinement in a day or two. This I am never prepared to believe about any bird born wild and captured after maturity. Cowed, or caged into submission, they may be, but *reconciled*, never!

Questions for Teachers and Students

What family of birds has the greatest number of species? What is the relation between the colors of Finches and Sparrows and their haunts? What is the principal external character of Finches? What is their chief food? Do they migrate as far as birds which live mainly on insects? How many of our commoner winter birds belong to the Sparrow family?

The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by WILLIAM DUTCHER

Address all correspondence, and send all remittances for dues and contributions, to the National Association of Audubon Societies, 141 Broadway, New York City

Notice of Annual Meeting of the National Association of Audubon Societies

The annual meeting of the members of the National Association of Audubon Societies for the Protection of Wild Birds and Animals, for the election of four directors to take the places of the following directors, viz.: Frank M. Chapman, Witmer Stone, Hermon Bumpus and William Brewster, class of 1907, whose terms of office will then expire, and of George Panitz and Alphonso Hodgman, class of 1907, who have resigned, and for the transaction of such other business as may properly come before the meeting, will be held at the American Museum of Natural History, Columbus avenue and 77th street, in the Borough of Manhattan and City of New York, on the 29th day of October, 1907, at 2 o'clock.—T. GILBERT PEARSON, *Sec'y*.

Wood Duck and Woodcock Summer Shooting Condemned

Wood Ducks bred here (Long Island, N. Y.) this season and all summer long I have seen scattered birds, and now small bunches are beginning to appear in the ponds close by. I saw one nice bunch of seven, a few mornings ago, in a pond right close to several houses.

For the past two months—ever since I first looked for them—I have been finding Woodcock, and I believe I have pretty well proven the theory that these birds can regularly be found within a few feet of where you first locate them, for I have found them every time I cared to look for them. If summer shooting is allowed to continue, you can readily see how this local habit of the Woodcock will seal its doom. To this very habit I attribute its present scarcity in sections where it was formerly abundant, for gunners have

killed every bird they could find, until none was left to return another season. In Nassau and Queens counties I know great stretches of fine Woodcock grounds where today the bird is rarely seen in the summer months, while further east, in Suffolk county, where the bird is not much disturbed, in the summer months, it can still be found in goodly numbers.

To illustrate how destructive summer shooting is, I have heard of one man who killed nine birds on the Fourth of July, this year. This man is not a good shot, but he takes pride in the fact that not a bird escaped him. These birds were killed along a small drain, in one piece of woods, and he probably killed the old and young of two entire broods. Next season this party will probably wonder why there are no birds in this particular patch of woods. A few such men as the above will destroy many birds in a season and in a short while will leave the section of country they hunt without a bird.

If the open season did not begin until the first of October, or even until the 15th of September, it would be impossible to kill off all the birds found; for by that time they would have obtained their full growth and would be better able to take care of themselves. Every gunner knows that after you put up a fall Woodcock a couple of times without getting it, it is a hard matter to again locate it. In this connection, I might state that, on a trip last fall, a friend found about thirty-five Woodcock, only sixteen of which were killed. He could, of course, have killed a few more of these birds, but does not believe in hunting too close. Many of these birds would not lie for the dogs, and flushed without giving a shot, showing that in the fall they are well able to take care of themselves.

—JOHN H. HENDRICKSON, *Jamaica, L. I.*

The New Bird Reservations in the Gulf of Mexico

The National Association of Audubon Societies, in continuing the plan originated by the Thayer Fund of making a thorough bird survey of the coasts of the United States, sent its lecturer and organizer, Mr. Henry H. Kopman, who is a well-equipped ornithologist, early in May last to explore the coast of Louisiana from the Texas line to the mouth of the Mississippi. The trip was made in a small schooner, 15 tons, the "Sea Bird," under command of Captain Couvillier with mate Colson. The results obtained by Mr. Kopman were complete and satisfactory and furnished the desired information on which to base a request for two new reservations which were made by official orders of President Roosevelt in August, as reproduced below.

The report of Mr. Kopman contains so much valuable ornithological material that it is given in full for the benefit of the bird students of the country, and also because it cannot fail to interest the members of the Association who, besides being deeply concerned in the preservation of the birds, furnish the funds with which to carry on the work.—W. D.

Executive Order

It is hereby ordered that all small islets, commonly called mud lumps, in or near the mouths of the Mississippi river, Louisiana, located within the area segregated and shown upon the diagram hereto attached and made a part of this order, are hereby reserved and set aside for the use of the Department of Agriculture, as a preserve and breeding ground for native birds. This reservation to be known as Tern Islands Reservation.

THEODORE ROOSEVELT

THE WHITE HOUSE,
August 8, 1907

Executive Order

It is hereby ordered that the Executive Order of July 9, 1855, creating the Light House Reservation, which embraces a small group of unsurveyed islets located in the Gulf of Mexico about three and one-half miles south of Marsh Island, Louisiana, and approximately in latitude 29° 26' north, longitude 91° 51' west from Greenwich, as appears upon United States Coast Survey Chart No. 200, be, and the same is hereby vacated and set aside; and it is also ordered that these islets, located within the area segregated and shown upon the diagram hereto attached and made a part of this Order, be, and they are hereby reserved and set apart for the use of the Department of Agriculture as a reserve and breeding ground for native birds. This reservation to be known as Shell Keys Reservation.

THEODORE ROOSEVELT

THE WHITE HOUSE,
August 17, 1907

TERN ISLANDS RESERVATION

For Protection of Native Birds
At Mouths of Mississippi River
LOUISIANA.

*Embracing all small islets within area segregated
by broken line shown hereon and designated
"Tern Islands Reservation"*



DEPARTMENT OF THE INTERIOR,
GENERAL LAND OFFICE,
Richard A. Ballinger, Commissioner.

[DIAGRAM ATTACHED TO AND MADE A PART OF THE EXECUTIVE
ORDER DATED AUGUST 8, 1907.]

SHELL KEYS RESERVATION

For Protection of Native Birds

LOUISIANA.

*Embracing all small islets within area segregated
by broken line shown hereon and designated
"Shell Keys Reservation"*



DEPARTMENT OF THE INTERIOR
GENERAL LAND OFFICE

Richard A. Ballinger, Commissioner

[DIAGRAM ATTACHED TO AND MADE A PART OF THE EXECUTIVE
ORDER DATED AUGUST 17, 1907.]

Report of Exploration of Seabird Colonies

On the Coast of Louisiana West of the Mississippi River, Made in the Interests of
the National Association of Audubon Societies, May 15, 1907, to June 21, 1907

By H. H. KOPMAN

In submitting a report of the conditions of sea-bird life observed during the cruise along the coast of Louisiana between the Sabine river and Pass a L'Outre, Mississippi river, from May 15 to June 21, 1907, I would first call attention to several general features of the situation now confronting an attempt to establish breeding reservations in the regions under consideration.

First. The birds of the territory visited showed a decided disposition to congregate during the nesting season within two comparatively small areas, one being the chain of outer islands from Isle Derniere to East Timbalier, and the other being the mud lumps off the mouths of the Mississippi; practically all the nesting colonies found were within these two areas.

While the fact just instanced would doubtless facilitate in the work of protection, it indicates that the birds of the western coast of Louisiana are not displaying at present their normal breeding vigor because of lack of confidence in their surroundings, due to recent as well as to previous persecution. Islands known to have been used formerly as breeding resorts were found deserted during the past season, or, if occupied, the birds showed no disposition to take up their nesting duties. While it was reasonable to suspect the presence of non-breeding birds at most of the islands, the proportion of these seemed unusually large.

In conclusion, as regards this particular subject, it is my belief that, after several years of careful warden supervision of the coast explored, the extent of the nesting territory would be greatly increased, and that islands now used only by feeding and resting birds during the present season would become regular nesting resorts.

Second. The most important single discoveries made were the colonies of Laughing Gulls, Black Skimmers, and Louisiana Herons on East Timbalier, and the Brown Pelicans on the mud lumps off Southwest Pass. Although the birds on East Timbalier have been greatly molested this year, they have not been altogether discouraged. In the case of the Pelicans on the 'mud lumps' at Southwest and other passes of the Mississippi, there seems to be little disposition in that neighborhood to molest the birds, and apparently full broods were raised. I was informed by the United States engineers in charge of the dredging operations at Southwest Pass, where the new concrete jetties are being constructed at a cost of several million dollars, that the mud lumps off the Passes are part of the territory under National control. There lumps appear, disappear, and reappear from time to time, but always within the same general areas. I saw none more than a mile from shore, and most of them are closely adjacent to the actual outlets of the river. Some of them have grown to an elevation of six or

eight feet above ordinary high tide and an extent of an acre or more. It is the opinion of an engineer with whom I conversed that all of these mud lumps might be set aside *en bloc* as a National Reservation. While all the lumps were not used as nesting-sites, any of them is apt to be so used. The lumps are supposed to originate from the action of gas and oil domes, but there is evidently a growth in their size from the ordinary course of sedimentation. There is little



CAPTAIN FRANK COUVILLIER AND WARNING NOTICE ON EAST TIMBALIER

vegetable growth on the lumps except of those weeds that come readily in Mississippi mud.

Third. With respect to patrolling possible reservations, Grand Isle seems the most generally convenient base of operations under present conditions. Lighthouses are in close proximity to the colonies at East Timbalier, Southwest Pass and Pass a L'Outre. The most inaccessible colonies are those on Isle Derniere and She'l Keys, off Marsh Island. The former of these might be in-

cluded on the beat from Grand Isle, but would be more conveniently included with Shell Keys on a distinct route, with Morgan City as headquarters.

Fourth. The clusters of islands in the shallower parts of the several bays between the Atchafalaya and Mississippi rivers, contrary to expectation, proved almost absolutely unproductive in the present connection. Aside from the fact that all or nearly all of these islands are infested with raccoons, muskrats and other small predaceous mammals, their growths are not especially suited to the nesting of sea-birds; rushes (*Juncus*), and a low shrub allied to *Rhizophora mangle* cover most of these islands. In a few cases, however, *Spartina* and a few other marsh grasses offer suitable nesting-sites for Laughing Gulls, Forster's Terns and possibly one or two other species; yet only three small colonies of Forster's Terns were found on such islands. The proximity of fishing camps and the liability of molestation may be responsible for the absence of birds in the majority of such cases.

The innermost of the islands just referred to are in water so shallow that it was impossible to reach them with the Seabird, which cannot be safely handled in much less than four feet of water; and, while I am confident that almost entirely similar conditions prevail throughout these districts of clustered marsh islands, a very shallow-draft boat, working among the innermost of the islands, might discover a few additional colonies of Forster's Terns. The territory uncovered by the Seabird from the outside could easily be covered in a week or ten days, at the most by a small boat working from the actual mainland.

NESTING COLONIES

1. *Shell Keys* (Now a reservation).—These keys lie about south of east from Southwest Pass, Vermilion Bay, and are about four miles south of the mouth of Oyster Bayou, Marsh Island. The keys form a reef about a mile and a half in length. The eastern key is the longest and is separated by about a half-mile from the others. The chart shows the reef as composed of a single key.

These keys were visited May 16 and 17. About 300 Brown Pelicans, 500 Man-o'-War Birds and 900 Royal Terns were seen on the keys. The Terns had begun to nest on the central key and about 200 nests were found there. About 15 Pelican nests were found on this key and about 20 nests on the western key. The Man-o'-War Birds, so far as known, use the keys only as a resting-place.

Besides the birds seen on Shell Keys, about 60 Brown Pelicans and 200 Royal Terns were seen on Diamond Reef Keys, two and one-half miles off shore from Cheniere la Croix, Marsh Island. These latter keys are merely resting-places.

The Shell Keys are composed entirely of oyster-shell fragments, are devoid of vegetation, have an average breadth of about 15 feet, and are nowhere more than three or four feet above ordinary high tide.

2. *Caroline Cut Island*.—This small island is a portion of Isle Derniere. It is not named separately on the government charts. It lies west of a pass known locally as Caroline's Cut.

I visited this island June 3 and June 20. At the time of the second visit, Black Skimmers had begun to nest freely. There were about 750 of these birds on or about this island. Over 200 nests were found. No other birds were found nesting here, although 150 Royal Terns, 200 *White Pelicans* and 300 Brown Pelicans were seen. The extent of this island is about eight acres. There are a few raccoons on it, but otherwise it is an admirable site for nesting.

3. *East Timbalier*.—Nesting, except among the Black Skimmers, was in full progress while I was at this island, June 5 to 7. There were present about 4,500 Laughing Gulls, 5,500 Black Skimmers, 1,750 Louisiana Herons, 8 or 10 *Snowy Herons*, and 6 or 8 Black-crowned Night Herons. Very few Skimmers'



YOUNG BROWN PELICANS ON MUD LUMP, S. W. PASS, MISSISSIPPI RIVER

nests were found, but the Laughing Gulls and Louisiana Herons were nesting freely. The Gulls nest chiefly at the western end of the island, the Herons chiefly at the eastern end. The area of the island is about 50 acres. It is making at the eastern end, and washing at the western end. East Timbalier has the heaviest vegetation of any of the seaward islands, yet raccoons do not appear to be present.

Other birds seen here were about 200 Royal Terns and 500 Brown Pelicans.

4. *North Pass Mud Lumps* (All the mud lumps are now a Reservation).—These lumps are about a mile directly off the pass. Their bearing from Pass a L'Outre light is N. N. E. On two of these lumps, the larger of the two being only about one hundred feet across, the following birds were nesting: 25 Laughing

Gulls, 25 Royal Terns, 50 Forster's Terns, 75 Caspian Terns and 20 Brown Pelicans. A stop was made here, June 13.

5. *Pass a L'Outre Mud Lumps*.—A rather large lump lies a little to the north of a direct line out of this pass. Its bearing from the light is E. by N. $\frac{1}{2}$ N. A few Royal Terns, 25 Caspian Terns, 25 Laughing Gulls and about 125 Forster's Terns were nesting here. This lump was visited June 13.

6. *Northeast Pass Mud Lumps*.—About twelve islands, with a general bearing of E. S. E. from Pass à L'Outre light, lie off Northeast Pass. The more northerly of these lumps are in most cases the larger, and are occupied almost exclusively by Brown Pelicans. Of young and adults there were about 600 birds. From 350



LOUISIANA HERONS, EAST TIMBALIER

to 400 Forster's Terns and about 500 Laughing Gulls were distributed among the more southerly islands, and the majority of them were nesting. There were also about 50 Cabot's Terns in this vicinity, but no certain proof of their nesting was secured. These lumps were visited June 14.

7. *Southwest Pass Mud Lumps*.—Just to the east of the new jetties and about a mile from the lower end, I found about 200 Brown Pelicans nesting on three of the four lumps in that locality.

On the west of the jetties and near the upper end, two small lumps and two large lumps were found occupied by about 7,500 Brown Pelicans in every stage of nesting.

The situation of these lumps, within easy reach of the Southwest Pass lighthouse and the United States engineers' offices, renders them an ideal location

for a government reservation. Surveillance here would be a very simple matter. These lumps were visited on June 15.

FEEDING STATIONS

1. *Calcasieu Pass*—I had excellent opportunities for observation at this point being held there by contrary winds from the evening of May 21 to the morning of May 26. Calcasieu Pass is the site of the Gulf Biologic Station, a state institution. The town of Cameron, or Leesville, is about two miles up the river. Except for this village, the region about Calcasieu Pass is rather isolated. The nearest town of any size, Lake Charles, is about forty miles distant in a direct line, and nearly sixty by river. This entire locality offers exceptional advantages as a preserve for both land and water birds. The country is low and open, for the most part. At the time of my visit, I observed about 50 Least Terns, 50 *White Pelicans* and 300 Black Skimmers feeding along the shore and about the pass. Florida Ducks were nesting plentifully in the vicinity. In winter, Ducks of many species are present by thousands. In spite of the lateness of my visit, shore birds were present in great variety and in considerable numbers. On the prairies, Doves, Meadowlarks, Bob-Whites and Nighthawks are exceedingly abundant. Some of the larger and less common water-birds, such as the Wood and Glossy Ibises, Roseate Spoonbill, Wood Duck, and Sandhill Crane are present where deep swamps and river woods occur in this region. Altogether, this entire locality seems one of exceptional avian resources.

2. *Trinity Bay, Isle Dernière*.—A number of birds were seen June 3 at the head of the bay, and at a point half-way up the bay. The species and approximate numbers were as follows: Black Skimmers, 600; Brown Pelicans, 450; *White Pelicans*, 175; Royal Terns, 100; Least Terns, 75; Laughing Gulls, 50; Forster's Terns, 15; Caspian Terns, 10. The nesting season of Black Skimmers had hardly begun when this locality was visited, but, as they have occupied it as a breeding place in former seasons, it is very probable that they are nesting there this summer.

3. *Wine Island*.—Although shown on the charts as a single island, this island has been divided into two parts. Birds were found on the spits at both ends of the eastern island, and on the eastern end of the western island. The total bird population here was: Brown Pelicans, 1,300; *White Pelicans*, 150; Royal Terns, 400; Black Skimmers, 100; Least Terns, 60. These were the estimates made on June 4.

4. *Ft. Livingston (Barataria Light)*.—Visited June 7, 10 and 16. About 25 Cabot's Terns and 300 Brown Pelicans were observed in this particular locality.

5. *Barataria Bay*.—I was in various parts of this bay and its contiguous waters, June 7-10, and June 16 and 17. 50 *White Pelicans*, 150 Brown Pelicans, 200 Forster's Terns and about 500 Laughing Gulls included most of the birds seen.

6. *Shell Islands, Bastian Bay*.—Though these islands seem to afford a very suitable nesting-site, being somewhat similar to the Shell Keys off Marsh Island,

few birds were found near them, and none were nesting. I saw, in all, about 25 Royal Terns, 40 Forster's Terns and 125 Brown Pelicans.

ENUMERATION OF SPECIES

Of birds seen in nesting colonies and at feeding stations. (Breeding colonies are marked with an asterisk [*].)

BROWN PELICAN—

Diamond Reef Keys	60
*Shell Keys	300
Caroline's Cut Island	300
Trinity Bay	450
Wine Island (eastern).....	325
Wine Island (western).....	1,000
East Timbalier	500
Ft. Livingston.....	300
Barataria Bay.....	150
Shell Island.....	125
*North Pass	20
*Northeast Pass	600
*Southwest Pass	7,500

11,630

WHITE PELICAN—

Calcasieu Pass	50
Caroline's Cut Island.....	200
Trinity Bay	150
Wine Island (eastern)	200
Barataria Bay.....	50

650

LEAST TERN—

Calcasieu Pass.....	50
Trinity Bay	75
Wine Island (eastern)	66

185

CABOT'S TERN—

Ft. Livingston.....	25
Northeast Pass	50

75

FORSTER'S TERN—

*Barataria Bay.....	200
Shell Island.....	50
*North Pass.....	50
*Pass à L'Outre.....	125
*Northeast Pass	375
Southwest Pass	200

1,000

CASPIAN TERN—

*North Pass.....	75
*Pass à L'Outre.....	25

100

ROYAL TERN—

Diamond Reef Keys	200
*Shell Keys	900
Caroline's Cut Island.....	150
Trinity Bay	100
Wine Island (eastern and western).....	400
East Timbalier	200
Shell Islands	25
*North Pass.....	25

2,000

BLACK SKIMMER—

Calcasieu Pass.....	300
*Caroline's Cut Island.....	750
Trinity Bay	600
Wine Island (eastern)	100
*East Timbalier	5,500
Northeast Pass	100

7,350

LOUISIANA HERON—

*East Timbalier	1,750
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LAUGHING GULL—

Trinity Bay.....	50
*East Timbalier	4,500
Barataria Bay.....	500
*North Pass.....	25
*Pass à L'Outre.....	25
*Northeast Pass	500

5,600

Grand Total.....30,340

Approximate numbers of birds found breeding—

Brown Pelican.....	8,500
Forster's Tern.....	700
Caspian Tern	100
Royal Tern.....	900
Black Skimmer	6,000
Louisiana Heron	1,500
Laughing Gull	5,000

22,700

In making the estimate above, considerable difficulty was experienced on account of the unsettled condition of the birds. This was particularly true on East Timbalier. Frequent disturbance of the birds here made it almost impossible to judge the proportion of breeding to non-breeding birds. My estimates in this respect, therefore, are purely approximate. The estimates of birds seen are reasonably accurate.

ROUTE OF TRIP

The general course of my route was from Morgan City to Sabine Pass, and return, and from Morgan City to Pass à L'Outre, Mississippi river and return. The first trip occupied the time from May 15 to May 29, and the second trip was made between June 1 and June 21. Four days were entirely lost on account of head winds; three Sundays we lay at anchor and two days we stayed in port at Morgan City, while putting the Seabird on the ways for copper painting and small repairs. The rest of the time was spent either in making destinations or in studying conditions ashore. A log was kept for brief entries of the daily course, including all stops. A copy of the exact itinerary, as entered in this book, will be furnished on request.

COURTESIES EXTENDED

At the Gulf Biologic Station, Mr. M. H. Spaulding, who was in charge at the time of my visit, did everything possible to make my stay, and that of my crew, a pleasant one. At East Timbalier, Mr. Will Oliver, the lightkeeper, coöperated with me in warning off violators of the state laws, and furnished some of the material for the erection of large warning notices. At Southwest Pass jetties, the United States engineers put at my command what information they had.

In conclusion, I wish to express my satisfaction at the faithful performance of their duties by my crew, Captain Frank Couvillier and Mate O. C. Colson.

Bird = Lore

A BI-MONTHLY MAGAZINE

DEVOTED TO THE STUDY AND PROTECTION OF BIRDS

OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

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No. 6

A Thrashing by Thrashers

By HERBERT K. JOB

With photographs by the author

SOMEWHERE, I had read that the Brown Thrasher is at times very bold in defending its nest, even from human intrusion. But as the years slipped by and I had inspected nest after nest of this species, in every case finding the owners as timid as the average song-bird, I began to wonder whether the story was not the product of some nature-fakir's art, which needed the proverbial grain of salt. But one day I found out the truth of the matter.

On the afternoon of June 18, 1906, toward sundown, I was driving homeward along a country road, on one side of which was a farmhouse, and on the other a bushy pasture. Here I saw a Brown Thrasher fly across the road just ahead of me, carrying in its bill a large worm. It flew down into the pasture and alighted upon the top of a dead sprout which projected from a thick clump of bushes. After pausing a moment to look around, in order to be sure that the coast was clear, down it went into the midst of the thicket. It was evident that there was a nest somewhere near that spot, so I hitched the horse, took my 4 x 5 camera and tripod, and went to investigate. But, though I made a careful search of the thicket into which the Thrasher had gone, I could find no sign of the nest. After looking it through again without success, I was about to look further away when I began to hear some hissing sounds, which increased in vehemence as I began to follow up this clue. It proved to be no snake, but the Brown Thrasher, sitting close on a nest which was built into a cavity of the ground under the bushes. There the bird remained, though I was but a step away, looking up into my face and continuing to hiss, braving me and daring me to touch it.

Withdrawing a little, I made ready the camera on the tripod. But the presentation of that blunderbuss was too much for the Thrasher's nerves. It ran off into the bushes, where it was joined by its mate, and both of them set up a great outcry. I could now catch glimpses of them both, and discovered that the brighter-hued one, the male, was the one which had been on the nest. No wonder they were angry and anxious, for they had five promising young—ragged and uncouth, to be sure—but fine, healthy young birds. After opening the bushes, to let in a little

more light upon this interesting subject, I set the camera upon the shortened tripod, decked it with foliage, attached a thread, set the shutter for an exposure of one second, and retired awhile. The birds soon stopped their scolding, so I quietly returned and discovered that the male bird was again on the nest. I pulled the thread, and was glad to see that my subject did not move. He even allowed me to creep up behind the camera, change plates and make exposures by hand. But when I tried to push the camera nearer, he beat a retreat. It was now getting



MALE BROWN THRASHER DEFENDING NEST

too dark for further work that day, so I put back the bushes in order and proceeded homeward.

Owing to trips away and rainy weather, it was not till four days later, June 22, that I was able to resume the work, this time with a reflecting camera. Again I found the male on duty. He slipped off, as before, and again I opened the bushes, and then, very innocently, put out my hand to the nest to remove an obstructing leaf. I was so surprised and startled that I almost fell over backwards when instantly the male Thrasher dashed from the shrubbery behind the nest and struck the offending hand a stinging blow. Instantly, he withdrew again and took his station behind the nest, waiting to see what I would do. As I was not looking for a fight, but for pictures, I stepped back a bit and squatted, waiting for the

brave defender to make the next move. Though it was mid-afternoon and the June sun was quite hot, and in a very short time the young, now about old enough to leave the nest, began to grow restless. The devoted father noticed this, and came at once to their relief. Running out from this shelter, he took his stand over them, spreading out wings and tail so as to make a perfect canopy to shield them from the sun. How impressive he looked as he bravely did his duty, with an air of being fearless and resigned to whatever might befall, if only he might protect his helpless little ones! The female was back in the thicket, exhorting



BROWN THRASHER AND YOUNG

him, I took it, to be brave,—though she took good care not to expose herself to danger.

With the reflecting camera, I then advanced, and, presenting the instrument as near to him as I cared to, made a couple of exposures. Then I wanted a different pose of the brave bird, so I extended my foot toward him. Instantly he pounced at my leg, struck it a quick, angry blow, and hastened back to the young, this time sitting on the nest as though incubating. After getting his picture in this position, I decoyed him off again and again. After each attack he would generally go off into the thicket, whence in a short time he would return to the nest and there assume some new and striking pose. One such was when he stood over the young and some of them poked out their heads through the feathers of his wing to see for themselves what was going on. Sometimes, when I made only a slight feint,

he would run part way to meet me, and stand out in the open in a defiant attitude while I snapped him.

During the course of this fracas, the young had one by one crawled out of the nest and into the shade of the thicket,—all but one which was more puny than the rest, and could not get up out of the rather deep cup. It was fortune for me that this was so, for the brave little father was as ready to incur danger for one as for all. His fine example at length seemed to inspire his mate, for she began to grow more threatening in her advances, and she even came out in front of the nest, where I secured just one snap-shot of her standing on a low, flat rock.

Having now used up a couple of boxes of plates and secured pictures of about every possible position, I thought I would see what they would do if I actually handled the young. So I started to lay hold of the chick in the nest. But no sooner had I touched him than like a whirlwind, with shrieks of rage and despair, both Thrashers precipitated themselves upon me. Seizing my fingers with their claws, they hung on, scratching like badgers, nipping my hand here and there with their sharp bills, and beating it furiously with their wings. Then they darted off into the thicket, and again and again I touched the young one, with the same result. The whole performance so interested me that I felt no injury from their attack. When I bethought myself to look at my hand, I saw that it was dotted with little drops of blood, where they had scratched or bitten through the skin. Then I wrapped a handkerchief around as armor and let them try their strength on that. If I put my foot near the nest, they went for that in the same vindictive fashion.

My only lack was of an assistant, to photograph the birds in the act of attacking me. It was too late to secure one that afternoon. The next day I would have brought my son, but the rain poured down unceasingly, and on the following day the thrashing Thrashers and their offspring had retired from the bloody field of the hard-fought battle and the glorious victory. No doubt they believed that they had worsted and routed a *man*, and henceforth and forever Thrasher art, ballad and literature will, of course, prate of arms and of the man who, on a memorable day, baffled and beaten, backward reeled from some stubborn birds and a barren field. As for the man in the case, he no longer doubts the Thrasher prowess, and, even while nursing his sore hand, took pleasure in describing to interested auditors his rather unusual experience in receiving a thrashing from small but experienced professional Thrashers.



Around the Horn for Petrels

By JOHN TREADWELL NICHOLS

With photographs by the author

THERE is a glamour which hangs about the sea, due perhaps to its dangers, its wildness, its mystery. There is a peculiar fascination in the study of pelagic birds.

For some years the writer has been particularly interested in the Albatrosses and Petrels, and in the latter part of the year 1906 was fortunate enough to make a trip to their center of abundance, the Southern Ocean. Some species of this group occur on all oceans, but to find them in abundance one should cross the parallel of, say 33° south latitude. At about this point the weather changes from good to bad. South of it are the westerly gales and the birds.

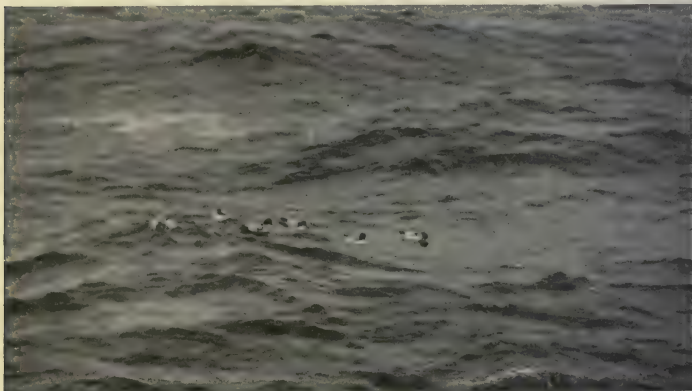
The ship, a square-rigged, iron sailing vessel which plies between New York and Honolulu, T. H., averaging about one year to the round trip, left her wharf, near the Battery, early one August morning. That same day, when well to sea, Mother Carey's Chickens became common. As to size, color and habits, birds of the Petrel order tend to be grouped about certain types. One of the best marked of these groups is the Mother Carey's Chickens. This again is separable into two structurally quite different divisions. One has short legs and generally a forked tail, and is characteristic of the Northern Hemisphere. A representative of it, Leach's Petrel, breeds on our coast from Maine northward. The Mother Carey's Chickens that were following the ship were, however, a long-legged, square-tailed species, Wilson's Petrel, which breeds in the far south in our winter, the southern summer, and, crossing the equator, is common off our coast in summer. For a few days they were about the ship, then they were gone.

We passed through a great, practically birdless area in mid-Atlantic, and once seven days went by without a bird,—the longest period of the voyage,—perhaps of my life. One day, out in this barren region, a beautiful white Tropic Bird was seen resting on the water. When the ship came abreast of it, it rose and flew away with characteristic flapping flight, and with a glass it was possible to see plainly its elongated central tail-feathers. Tropic Birds are as truly ocean wanderers as any fowl of the sea, and particularly characteristic of fine weather and the trade-wind belts of the Pacific. Here they are not numerous, and sometimes days go by without them; but again there are several flying about the ship, and their constant nasal cry becomes as familiar as the sunshine and the dancing trade-wind waves. They are higher flyers than the Petrel tribe, and this and their flapping flight mark them at once as of a different kidney from those low-sailing birds left in the westerly weather farther south. Sailors call them 'bo'sns,' and liken their elongated central tail-feathers to the 'marlin-spike' a boatswain might be expected to carry with him.

But, to return to Petrels. As we approached the equator, with South America drawing closer to the west and Africa to the east, there was a Mother Carey's

Chicken again, that looked so like those left in the Gulf Stream that it was probably the same species—Wilson's Petrel—journeying south to its breeding grounds. None could be secured, however, so the identification must stand as hypothetical.

Because we entered south latitude in September, which would correspond to our northern March bad weather and the birds were found well to the north. On September 18, about 20° south, there was a lone Cape Pigeon, not positively identified. That evening a heavy wind squall with rain and a little lightning bringing the wind about southwest, gave us our first taste of bad weather. Two days later there were 'Mollyhawks,' and the day after that Cape Pigeons. The smaller southern Albatrosses, exclusive of the gray, wedge-tailed *Phaethria*, the weirdest looking bird of the sea, belong to one type. Although systematists make



CAPE PIGEONS

two divisions of them, one of which includes also the large Albatrosses,—they are lumped by the sailor under the name 'Mollyhawk' or 'Molly,' and the name 'Albatross,' is reserved for the larger birds which differ also in color-pattern. Sailors claim that the 'Albatross' has one more joint in its wing than any other bird, and while doubting the anatomical truth of the statement, we still must confess that the narrow wing and elongated upper joints do give somewhat that impression.

Petrels and Albatrosses are birds primarily of the sea. No less truly, however, are they birds of the air and wind. The high winds of the region they inhabit, instead of being an obstacle, are to them a source of power. The sailing flight shared by many species (all the Albatrosses, the Giant Fulmar, the familiar little spotted Cape Pigeon, etc.) is particularly adapted to wind, and perhaps this sailing flight is the most interesting, and to a landsman the most striking thing about these birds, not even excepting the great bulk and wing spread of the Albatross

which afterwards makes common birds seen unnaturally small. They all will occasionally give their wings a few flaps, but the sailing greatly predominates. I cannot do better than quote from my note-book.

"September 20. A gray day; the sun barely more than burning through the clouds in the middle of the day. Not much wind, and the sea very smooth, but for the swell. Heard a cetacean blow close to the ship, and had a glimpse of his rather light-colored, brownish black, and his small dorsal fin. Saw two or three Mother Carey's Chickens settle and sit on the water astern of the ship, which seems worth noting, because one usually sees them on the wing. There were a couple of small Albatrosses about,—the first this voyage. It was fine to watch these birds sweeping along in their sailing flight, at intervals interrupted by a few flaps of their great wings; turning this way and that, often leaning far over to one side; now close to the water, now curving into the air some yards above it. They seemed to flap their wings less frequently later when the wind was a little fresher, than earlier with less wind.

"September 22. Towards evening watched a small Albatross come close to the ship, and then fly off into the distance. I watched it as continuously as I could, and did not see it flap its wings at all. I believe it was sailing all the time. There was a strong wind blowing.

"October 29. In the afternoon there was a strong wind blowing. I was watching carefully the flight of some Cape Pigeons, a few 'Mollies' and a Cape Dove or slender-billed Fulmar. The flight of the three was very similar and illustrated well the sailing, Petrel flight at its highest development. Occasionally they gave their wings a few flaps, but only occasionally, and the general impression was that they were sailing, sailing, sailing always. The birds were sometimes horizontal, but often one wing was lower than the other, and frequently the bird was thus tilted far over to one side. I noticed that they turned toward the down wing, and probably this is a, if not the



YOUNG WANDERING ALBATROSS

A poor picture, which nevertheless shows the characteristic scaling flight, low over the water



chief, factor in their steering method. Occasionally, I saw a bird flapping its wings often, as though it were for the moment tired of sailing, or found difficulty in getting properly started, but this was exceptional.

"The Cape Dove seems to be much like the Cape Pigeon in flight and habits, coming about the ship with equal fearlessness and being equally eager for food which may come from her. The light mark near the end of the wing also suggests the stronger though not dissimilarly placed mark in the Cape Pigeon, and I find it very useful in recognizing the species.

"Later I had a chance to watch a few *Phaebetria* and one or two large Albatrosses. The flight is the same as that just described. Perhaps *Phaebetria* is more inclined than the other birds to half flap its wings, a tremor, which it is hard to decide to have been flapping, or simply adjustment of the wings in sailing.

"October 31. At sunset watched a *Phaebetria* sailing about, back and forth, at times passing directly over the ship, and when highest in the air, I should say a little higher than her masts, I watched it for some time, constantly, until it sailed astern and I lost track of it for the moment. Only once or twice was it out of my sight for an instant, and I did not see it flap its wings once. It was sailing constantly. There was a breeze, but it was not blowing hard."

One thing all the members of the Petrel order with which I am familiar have in common,—they fly low. Their method seems to be to fly about over the sea scrutinizing the miles of salt water which slip by below them for what they may pick up; at the same time ready to take the hint from another more fortunate bird which they see drop down to some food it has spied. Luck must play a big part in this game, and who can say how many miles sometimes go by without yielding return. But miles mean little to them, and a day's gorging doubtless compensates for days of want.



CAPE HORN

The Heath Hen

A Sketch of a Bird Now on the Verge of Extinction

By DR. GEORGE W. FIELD.

Chairman, Massachusetts Commission on Fisheries and Game

DURING the past two years much interest has been shown to save the last remnant of the Eastern Pinnated Grouse or Heath Hen (*Tympanuchus cupido*). It was formerly distributed from Cape Ann to Virginia, and was especially abundant in Massachusetts, Rhode Island, Connecticut, Long Island and New Jersey; but immense numbers of adult birds were destroyed by guns and traps, while the young fell victims to the colonial cat and to forest fires. So abundant was this bird in the dark ages of ornithology, when indiscriminate slaughter prevailed without thought of the bird's economic value or place and function in Nature, that the articles of apprentices often specified that they should not be compelled to eat the meat of this Grouse, (locally called 'Heath Hen'), oftener than twice weekly.

Between 1800 and 1840 the bird had been generally exterminated in Massachusetts. In 1844 Giraud believed it to be extinct on Long Island; as late as 1869 it was still found in New Jersey, and today the very last stand of the bird is on the island of Martha's Vineyard.

The eastern bird was first distinguished from the western type by William Brewster, and described by him under the name *Cupidonia cupido* (Auk, January 1885, p. 82). In 1890 Mr. Brewster estimated that 120 to 200 birds, inhabiting about forty square miles, were left over from the previous winter. This number has slowly but surely diminished. Careful daily observations, extending from October 1906 to May 1907, showed that the inhabited area has become restricted to about thirty square miles, and the probable number of individuals to less than one hundred. By actual count of the flocks very definitely located in various sections of the range, seventy-seven different individuals were accounted for. In May 1906, a destructive forest fire swept practically the entire breeding grounds, and very few birds were reared that season. The summer of 1907, however, was a favorable one. We know that at least ten broods were successfully reared, and our census this year will probably show that the number of birds has more than doubled.

This Grouse (called 'Hethen' by the natives) has been a well-known and characteristic bird of the island as far back as memory or local tradition extends. Opinions are widely held that from time to time western Pinnated Grouse or Prairie Hens have been liberated on the island. Careful inquiries indicate that the facts are as follows: (1) In 1859 Dr. Fisher liberated Ruffed Grouse and Quail on the island, but no western Prairie Chickens; (2) In 1902 specimens of the western Prairie Chicken (*Tympanuchus americanus*), which had survived the sportmen's show at Boston, were liberated on Martha's Vineyard, but no subsequent indications of their presence are known.

In 1877, foxes and coons were introduced for sport and later liberated from spite, but it is probable that these have now been exterminated, and at present the chief checks to the increase of the Heath Hen are (1) the forest fires, which in recent years have swept large areas of the breeding grounds almost annually, usually during the nesting period; (2) cats, whether kept or abandoned by the summer visitors, feed upon the young Heath Hen, Terns and other birds; (3) certain species of hawks, notably the Goshawk, are known to kill considerable numbers of adult Grouse; (4) with the increase of poultry raising on the islands, particularly of the Turkey, there is danger of the introduction of enteric diseases, notably "the black head," caused by the internal parasite *Amæba melægridis*, which is equally fatal to Turkeys, Ruffed Grouse and Quail, but which is also spread by domestic fowls.

About 1813 the Heath Hen disappeared from the district around Springfield, Massachusetts. In 1824 it was reported as no longer common around Boston. Cape Cod was the last stand on the mainland. In 1831 the 'Grouse or Heath Hen' had become so reduced in numbers that a law was passed making a close season from March 1, to September 1. In spite of this, the decline continued. Chapter 170, Acts of 1837, made a close season of four years upon this bird, which, by Chapter 7, Acts of 1841, was extended for five years. These acts, however, permitted any town to suspend this law in that town for such a period as they deemed expedient. Some towns took advantage of this to secure special privileges for the inhabitants of that town, e. g. Tisbury, on May 6, 1842, "Voted that the Law for the Preservation of the Grouse or Heath Hen be so far suspended in the Town of Tisbury as to allow the inhabitants of said town to kill, take or sell Grouse or Heath Hens from the first day of December to the tenth day of December inclusive, provided they hunt them without the aid of dogs." The action of a subsequent town indicates that the decline in numbers was rapid. On April 1, 1850, the same town of Tisbury voted to suspend this law so as to permit the hunting (without dogs) of these birds on the "12 and 13 of November next." (Perhaps for the purpose of providing a substitute for the Thanksgiving Turkey.) From this period to 1975 there were no systematic attempts to enforce the law. The number of birds killed usually equaled or frequently exceeded the annual increase. The islanders resented the intrusion of non-resident hunters, but many birds were killed by rabbit hunters and by duck hunters crossing the island to the ducking stands on the south shore. Some birds were taken by collectors, and these skins, supplemented by others bearing fraudulent data, were disposed of extensively to museums and natural history stores.

During all this period, however, there was kept alive the feeling of local pride in the Heath Hen as a peculiar possession of Martha's Vineyard. It has been even stated that sentiments wellnigh voodoo-like in tendency were current on the island,—e. g., that a boy must eat Heath Hen before reaching a certain age. The writer, however, from careful inquiry, is of the opinion that there is no basis for such statements.

Since almost nothing has been recorded of the habits of the Heath Hen, the following notes, made by the writer on the spot, may be of interest.

MARTHA'S VINEYARD, May 1, 1906

At 6 p. m., we arrived at the point where we hoped to find traces of the Heath Hen. In a cleared field about thirty rods from the road we distinctly saw two large birds. On our nearer approach they squatted close, and their protective coloration was so effective that, although we knew almost exactly the precise location of the birds, we could not distinguish them. We crawled behind the nearest cover, and



THE HOME OF THE HEATH HEN

The men are looking at the nest shown in the next illustration.

Photographed by George W. Field

remained motionless for perhaps ten minutes. At length the long shadows from the descending sun enabled us to distinguish the birds as they crouched with head close to the ground, among the very scanty vegetation. After another interval of motionless activity on our part, one bird quickly arose and began feeding, apparently without suspicion; soon two more birds arose as if by magic from the ground. Then began a most interesting series of antics. These birds were joined by five others, coming in singly and on foot from the scrub in various directions. The birds came frequently within forty paces of our hiding-place, and in one instance alighted on a small oak tree twenty-three paces from our camera. While not near

enough for successful photographing, we were well situated for using our field glasses. The birds were all actively feeding in the open field, apparently on grasshoppers and other insects, but nipping red clover leaves very freely. They moved leisurely about. Frequently two birds, sometimes as much as one hundred to one hundred and fifty yards apart, ran directly toward each other, dancing and blowing on the way, with the so-called 'neck wings' pointed upward in a V form. On facing each other, both squatted and remained motionless from one to five minutes. We could see none of the nodding and pecking motions of the head so commonly indulged in by domestic fowls when fighting; rarely was there sparring with the bill or striking with the feet and wings. In twelve or fifteen encounters, only three or four times did they strike thus, and only once did we see 'feathers fly.' Most of the energy seems to be spent in posturing and blowing. Generally, one of the combatants backed slowly away, suddenly stopping if the opponent advanced too rapidly. In all these fighting tactics the similarity of habits with those of the domestic fowl were very marked. From all directions came the peculiar 'toot,' like distant tug-boats in a fog, all having whistles of the same pitch. This call may be well imitated by blowing gently into the neck of a two-drachm homœopathic vial. Each call extends over a period of two seconds, and is repeated at frequent intervals. It is prefaced by a run of about one yard, with very rapid, mincing steps. The strides, however, are so short that the bird does not advance rapidly. The tail is spread and the wings dropped after the manner of the strutting Turkey cock. When the tail is spread, the white under-tail coverts are conspicuous, and remind one forcibly of the 'white flag' of the deer and antelope or of our gray rabbit. The head is then depressed and the neck outstretched forward until it is about parallel with the surface of the ground; the neck tufts are elevated to a V-shape. The bright, orange-colored air-sacs on each side of the neck, directly behind the tufts of feathers, are slowly inflated until they reach apparently the size of a tennis-ball, when they appear like two small, ripe oranges, one protruding from either side of the neck. The duration of the call appears to closely coincide with the period of inflation, and seems to be emitted as the air enters the sac, rather than when the air is expelled. The collapse of the sac is sudden. The sound is ventriloquial, and it is very difficult to locate the direction or distance whence it comes, unless the bird can be seen. A second sort of call is much less frequent, and closely resembles a single syllable of the hoot of the Barred Owl.

Another characteristic antic was a peculiar combination of a short run, a sudden jump of three to five feet into the air, and a rapid uncoördinated flop and scramble in the air, the bird usually alighting within ten or twenty feet of the starting point, but turning so as to face at least at right angles, or even in the opposite direction from which it started. When in the air, it emits a peculiar cacophonous call or cackle, which, when heard at a distance, gives the impression of a hearty burst of laughter. The purpose of these semi-somersault-like manœuvres appeared to be to attract the attention of other birds, possibly even as a challenge.

for frequently they seemed to precede the somewhat pacific duels described above. The effect of these sounds, together with the 'tooting' calls in the mists which so often obtain in their habitat before sunrise, is weird in the extreme. At 4:15 A. M. on May 2, these sounds were practically continuous, without appreciable interval, apparently from all directions. At 4:45 A. M. six birds could be counted, all in sight at once. They appeared to resort to a particular clear space of about two acres in extent, where the antics just described were carried on. All the birds, except one, were observed to have the orange-colored air-sacs. These



THE FIRST NEST OF THE HEATH HEN TO BE DESCRIBED
AND PHOTOGRAPHED

Photographed by George W. Field, June 2, 1906

were probably cocks. We saw only one bird which we suspected might be a hen. The other hens were probably nesting, or at least had secured mates, and no longer resorted to the promenading place. As the sun rose high the 'tooting' became less frequent; the birds became more restless, often flying to the neighboring low oaks, nesting there until disturbed. The flight reminds one of that characteristic of the Carrion Crow or Black Vulture of the south (*Catharista rubra*),—a succession of four to ten strong, rapid wing-beats, followed by a sail of one hundred to two hundred yards on set wings; this is repeated until the bird again alights or passes beyond the range of vision. The line of flight is usually a straight line, twenty to twenty-five feet above the ground. Of our native birds, the manner of flight most resembles our Meadowlark.

The bird gives one the impression of admirable adaptation to the open country,—a large, muscular, hardy, vigorous bird, able to withstand snow and sleet, in size equal or even exceeding the Ruffed Grouse in weight. Inhabiting open fields and pastures, subsisting on insects, leaves, seeds and wild berries, in a country where the absence of foxes and raccoons reduces the numbers of its enemies practically to cats, men, skunks, field-mice and rarely some species of hawks, the problem of maintaining and bringing back the bird to its former abundance seems practicable.

Of the total number, twenty-one, which we observed on May 1 and 2, twenty were plainly males; of the sex of one we were uncertain.

On June 4, a set of nine Heath Hen's eggs was taken and placed under a bantam hen, selected for this purpose because she appeared to be unusually tractable; but on June 20, when one of the chicks hatched it was immediately killed by the hen, which attacked it viciously before it was entirely out of the shell. The



THE HEATH HEN GROUP IN THE AMERICAN MUSEUM OF NATURAL HISTORY
The nest and eggs are shown *in situ* in the preceding illustration

Photographed by J. Otis Wheelock

other Heath Hen's eggs failed to hatch, and only one contained a well-developed embryo. After destroying the Heath Hen chick, the hen was given some pheasant eggs, hatched them, and reared the chicks with all possible care.

An injured Heath Hen was received from Martha's Vineyard, November 19, but refused to feed, and, though placed in a pen with a tamed Ruffed Grouse, lived only a week in the pen.

The only nest known to the writer was found in oak woods among sprouts at the base of a large stump and contained either twelve or thirteen eggs, about June 10. William Brewster has a set of seven eggs taken July 24, 1885.

The value of the birds as a local asset was early appreciated by many of the best people, but to J. E. Howland is due the credit for initiating the action which promises to prevent for all time the extermination of this bird. Mr. Howland called the attention of the Massachusetts Commissioners on Fisheries and Game to the conditions, and a permanent guardian was located in the midst of the region inhabited by birds, to study their habits and to enforce the law. Amply supported by public opinion, Representative Mayhew introduced a bill, placing under the control and use of the Commission on Fisheries and Game such lands as may be donated, leased, purchased or otherwise placed under temporary or permanent control as a refuge and breeding area for the Heath Hen. Already \$2,338 has been pledged by public-spirited individuals and associations for the purpose, and about 1600 acres placed under special protection. In order that the expense may be minimized, the legislature authorized the commissioners to take, "for and in the name of the Commonwealth, such unimproved lands upon Martha's Vineyard, not exceeding one thousand acres, as they may deem necessary for the purpose of making fire-stops for the protection from fire of the feeding and breeding grounds of the Pinnated Grouse, or of otherwise securing the maintenance and increase of such Pinnated Grouse or of any other species of wild birds upon said islands." For work "incidental to these purposes, and for an investigation and reports upon the best methods and probable cost of protecting and increasing the colonies of birds on the island," two thousand dollars was appropriated by the last Massachusetts legislature.



A Season's Field Work

By FRANK M. CHAPMAN

With photographs by the author

THE many readers of BIRD-LORE who have expressed an interest in the 'Habitat Groups' of North American birds, now being prepared in the American Museum of Natural History, may care to hear briefly of the field work accomplished in connection with these groups during the past season. This work can be prosecuted only during the nesting season.

The studies for this year were, therefore, planned to cover as long a nesting period as possible, beginning with southern species which nest as early as January, and ending with northern birds which are not concerned with domestic affairs until July. In brief, the schedule was as follows:

March, southeastern Bahamas for Man-o'-war Birds and Boobies (*Sula leucogastra*).

April, southern border of the Florida Everglades for Spoonbills and Ibises.

May, South Carolina for White Egrets.

June, plains of Saskatchewan for Wild Geese and Grebes.

July, summits of the Canadian Rockies for Ptarmigan and other arctic-alpine birds.

The species of birds here included show wide variation in form and in nesting habit, while the country in which they live,—their habitat—presents an even greater diversity as we pass from a coral islet to a mangrove swamp or cypress forest, or over rolling plains to snow-clad mountain crests. The subjects selected were thus designed to add to the zoölogical as well as the geographical instructiveness of the exhibits as a whole.

A series of mishaps so prolonged the Bahaman expedition that I was prevented from reaching the Everglades in time to find Spoonbills nesting, but, with this exception, the schedule outlined above was followed with eminently satisfactory results.

On March 28, with Dr. Alfred M. Mayer and Mr. George Shiras, 3d, I sailed from Miami, Florida, for Nassau, Bahamas, aboard the 58-foot auxiliary ketch 'Physalia,' belonging to the Marine Biological laboratory of the Carnegie Institution. Dr. Alfred M. Mayer, director of the laboratory, was in command. To Dr. Mayer's coöperation the Museum is indebted for the success which attended our efforts to secure material and studies for the group of Man-o'-War Birds and Boobies; indeed, had it not been for Dr. Mayer's skillful seamanship, it is probable that the expedition would not have returned.

Nassau was reached March 29, at midnight. Laboratory supplies were here landed for the use of members of the staff, who proposed to pursue their studies in this vicinity, and, permission to collect the birds needed having been promptly granted by the Bahaman Government, we set sail for Cay Verde, March 31, at 7 A. M.

Cay Verde is an uninhabited islet of some forty acres area, situated on the eastern edge of the Columbus Bank, between the Ragged Islands and Inagua. It is only 250 miles from Nassau, but, owing to adverse weather conditions, which at times threatened us with serious disaster, ten days were required for the voyage.

The absence of definite information, both as to the number of birds frequenting Cay Verde and the time of their nesting, made the outcome of our trip more or less uncertain, and the difficulties encountered in reaching this remote islet added in no small degree to the pleasure with which we found it thickly populated with Boobies and Man-o'-war Birds, whose nesting season was at its height.



CAMP ON CAY VERDE

The birds in the air are Boobies

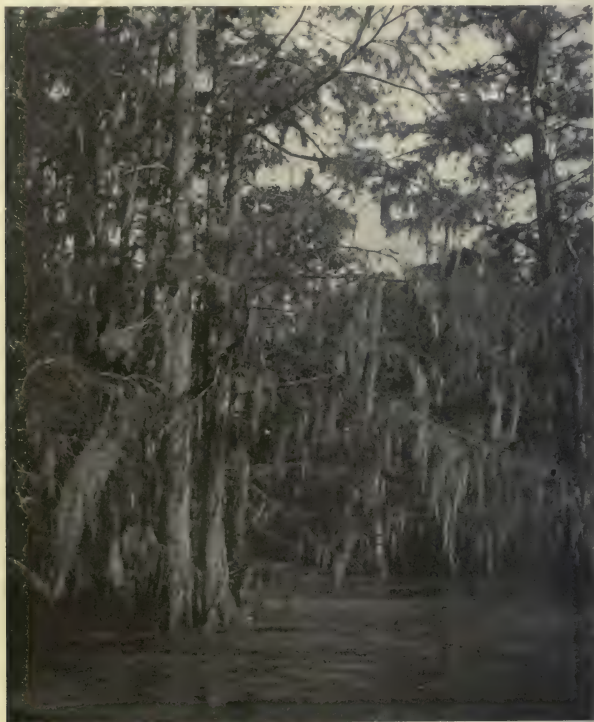
There is no harbor at Cay Verde, and, fearing that we might be forced by a storm to leave, Mr. Shiras and I camped on the islet, while Dr. Mayer anchored off shore, changing his position from one side of the Cay to the other, as the wind required.

We estimated that there were about three thousand Boobies and five hundred Man-o'-war Birds on Cay Verde. The Boobies nested on the ground, the Man-o'-war Birds in the dense thickets of sea-grape and cactus. Some nests contained fresh eggs, but the larger number held young birds in various stages of development, while a few young were already on the wing. The nesting conditions, therefore, presented an epitome of the whole nesting season.

The Boobies were remarkably tame, our intrusion occasioning surprise and

resentment rather than fear. One could walk among them as one would through a poultry yard, examining the nests and their occupants without attempt at concealment.

The Man-o'-war Birds were more suspicious, but still were approached without difficulty. Under these circumstances photographs and specimens were



CYPRESSES IN WHICH WHITE EGRETS WERE NESTING

The blind from which the birds were studied may be seen in the upper right-hand corner of the picture

easily secured, and at the end of three days satisfactory material was collected for the proposed group. A much larger period would be required to make adequate studies of the life of this bird community. Cay Verde was left April 11, and, after encountering the usual unfavorable conditions and some mishaps, we arrived at Miami April 29.

It being now too late to do the work planned for southern Florida, I pro-

ceeded to South Carolina, being joined by Mr. J. D. Figgins of the Museum's department of preparation, and by Bruce Horsfall, the artist, who has so successfully painted many of the backgrounds of the groups already completed.

It has long been our desire to include the White Egret in the series of 'Habitat Groups,' but plume hunters have brought this bird so near the verge of extermination that our efforts to find a 'rookery' in which suitable studies might be made had been fruitless. However, in February, 1907, information was received of the existence of a colony of Egrets on a large game preserve in South Carolina, where the Museum was readily granted permission to make the necessary studies and collections. On our arrival, every facility in the way of transportation, guides, etc., was accorded us.

When the ground in which the rookery is situated was acquired by the club now owning it, plume hunters had nearly exterminated the aigrette-bearing Herons which formerly inhabited it in large numbers. A few had escaped, and, after seven years of protection, they have formed one of the largest colonies of this much persecuted bird now existing in the United States. Six other species of Herons were found nesting with the White Egrets, the whole making a rookery such as existed commonly in the days of Audubon, but which in the United States are now almost unknown.

A former 'plumer,' now chief warden in charge of the preserve, stated that both the little White or Snowy Egret and the Roseate Spoonbill were once found in the region, but their complete annihilation left no stock which, under pro-



WHITE EGRET AND YOUNG

Made from the blind shown in the preceding picture

tection, might prove the source of an ever-increasing progeny. It is doubtful if these birds could be introduced, but, in any event, the preservation of the White Egret alone is a sufficient cause for thanksgiving, and bird-lovers will learn with gratification of the existence of an asylum where this beautiful creature will long be assured of a haven of refuge.

The Egrets were nesting high in the cypress trees growing in a lake several miles in length. In order, therefore, to make the photographic studies so essential to the taxidermist in securing life-like poses for his subjects, as well also, as to



RINGED-BILLED AND CALIFORNIA GULLS, CRANE LAKE, SASKATCHEWAN

learn something of the Egrets' little-known home life, the artificial umbrella-blind employed on many previous occasions was placed fifty feet up in a cypress tree, and draped with Spanish 'moss' (*Tillandsia*). From it photographs of the birds nesting in neighboring trees were eventually made.

The surroundings here were of great beauty, and Mr. Horsfall's carefully-made studies will no doubt enable him to reproduce in his background the singular charm of a flooded cypress forest.

On June 5, accompanied by Mr. L. A. Fuertes, as artist, I left New York for Maple Creek, Saskatchewan, on the line of the Canadian Pacific railway. This is a region of rolling plains dotted with lakes and ponds, which, when the water is not too alkaline, support in their shallower parts a dense growth of rushes,—the home of Grebes, Coots, Bitterns, Franklin's Gulls, Ruddy, Red-headed

and Canvas-back Ducks. About the grassy borders of the lakes and sloughs, Mallards, Gadwalls, Pintails, Widgeon, Blue-winged Teal and other Ducks nested. These species were also found on islands in the lakes where alone the Wild Goose was known to nest, while some small islets were virtually covered by hosts of Gulls and Pelicans.

On the prairies, Long-billed Curlew, Marbled Godwits and Bartramian Sandpipers laid their eggs. The region has well been called the nursery of wild fowl, as at one time were our border states to the south. But the advance of civilization, which first transforms a buffalo range to a cattle country, and later to a



CAMP AT PTARMIGAN PASS

wheat ranch, has already reached the early stages of its agricultural development about Maple Creek, and the forced retreat of the wild fowl to the more remote north is only a question of time. The Canadian Government would do well to set aside some of its still unsettled lands as permanent breeding reservations, to which each year, the water-fowls could return to nest. Such reservations would in truth be nurseries, and, in permitting a bird to reproduce, would be of infinitely more importance than preserves which afford protection only during the winter.

Near Maple Creek, materials were secured for groups of Wild Geese, Western and Eared Grebes, the Long-billed Curlew and Bartramian Sandpiper, due permission having first been received from the chief game guardian of the Province. The lack of timber and of drinking water made this region poor camping-ground,

and, while hunting and collecting, we were given quarters with Mr. Andrew Scott on Crane Lake and with the Messrs. Baynton on Big Stick Lake. To these gentlemen we are indebted not alone for entertainment but for much practical assistance.

July 2, we resumed our western journey in search now of those arctic birds which on the alpine summits of the Rocky Mountains find congenial surroundings.

After inquiry at various places, we decided to camp near the Ptarmigan Lakes, where we were informed the birds we wanted could be found. Saddle and pack-



MR. FUERTES ABOUT TO STROKE A WHITE-TAILED PTARMIGAN
ON ITS NEST.

The bird left the nest a moment later

horses and a guide were secured at Laggan, and on July 8, we encamped near timber-line, here at an altitude of 7,500 feet, just below the entrance to Ptarmigan pass.

The alpine spring was at its height. The wet meadows from which the snow had but lately disappeared were yellow with buttercups, the borders of the rapidly shrinking snowbanks were starred with large white alpine anemones; on the drier slopes heath and heather bloomed luxuriantly, and the rocks were covered with flowering Dryas. The lakes were still ice-bound, the mercury reached the freezing point nightly, and we experienced storms of snow and sleet, our tent, one morning, being stiff with ice.

Our work in this indescribably picturesque region was unexpectedly successful, specimens of birds and plants and a large number of photographs being obtained. Furthermore, the view from the heather-grown home of the Ptarmigan, which will form the actual foreground of our group southward through the Ptarmigan pass, was, even in this land of sublime scenery, of exceptional grandeur. The successively fainter timber-clad shoulders of the gap leading to the Bow valley are backed by Mt. Temple towering impressively, the central peak on a horizon marked, to the east, by the spire-like summits of the mountains about Moraine lake and to the west by Hungakee, Lefroy, and Victoria.

The tourists who climb these mountains or penetrate the valleys lying between them, may obtain a far more striking view of the range by crossing the Bow river at Laggan and ascending the mountains to the north, in which the studies for our Ptarmigan group were made.

Bird-Lore's Eighth Christmas Bird Census

THE plan of reporting one's observations afield on Christmas Day has met with such cordial and practical endorsement by bird students throughout the country that BIRD-LORE's Christmas Bird Census may now be considered a fixed event, which increases in interest as the accumulating records give additional material for comparison. From a total of 25 lists received in 1900, it has grown to 135 lists in 1906.

Reference to the February, 1901-1907 numbers of BIRD-LORE will acquaint one with the nature of the report of the day's hunt which we desire; but to those to whom none of these issues is available, we may explain that such reports should be headed by a brief statement of the character of the weather, whether clear, cloudy, rainy, etc.; whether the ground is bare or snow-covered, the direction and force of the wind, the temperature at the time of starting, the hour of starting and of returning. Then should be given, in the order of the A. O. U. 'Check-List,' a list of the species seen, with exactly, or approximately, the number of *individuals* of each species recorded. A record should read, therefore, somewhat as follows:

Yonkers, N. Y. Time, 8 A. M. to 12 M. Clear, ground bare; wind west, light; temperature 38°. Herring Gull, 75. Total,—species,—individuals.—JAMES GATES.

These records will be published in the February issue of BIRD-LORE, and it is particularly requested that they be sent the editor (at the American Museum of Natural History, New York City) not later than December 28. It will save the editor much clerical labor if the model here given and the order of the A. O. U. Check-List be closely followed.

The Migration of Flycatchers

FIRST PAPER

Compiled by Professor W. W. Cooke, Chiefly from Data
in the Biological Survey

With drawings by LOUIS AGASSIZ FUERTES and BRUCE HORSFALL

READERS of BIRD-LORE who are familiar with Professor Cooke's contributions on the migrations of Warblers and of Thrushes will be gratified to learn that with the kind permission of the Biological Survey this valuable series will be continued with a similar treatment of the Flycatchers. The unrivalled amount of data which Professor Cooke has at his disposal gives to these papers a value and interest readily appreciated by all field students of bird-life.—ED.

SCISSOR-TAILED FLYCATCHER

The winter home of the Scissor-tailed Flycatcher is in Central America and Mexico, from which region it enters the United States in March. The average date of arrival near San Antonio, Texas, is March 21, and the earliest, March 16, 1904. The bird is one of the most uniform species in its dates of arrival from year to year. During fifteen years of observation, it reached San Antonio for five years on March 21, and for eleven years within two days of this average date. In southern Texas the average date of arrival is March 18, the earliest being March 12, 1898. The average date in northern Texas is March 26, the earliest being March 21, 1876. Thus, the species, on the average, is only eight days in crossing the great state of Texas, or an average of more than fifty miles per day—a speed almost twice as great as the average of birds in the southern United States.

The Scissor-tailed Flycatcher is one of the few birds whose progress can be measured in this way, from southern Texas to the northern part of the state, for the reason that it migrates from its winter home to its breeding range by a land route through Mexico, while some other species that fly across the Gulf of Mexico to Texas appear in northern Texas as early as they are seen along the Rio Grande.

The Scissor-tail is most common in eastern Texas, fairly common in southern Oklahoma, and ranges north to southern Kansas. The journey from Texas to Kansas is usually made during the first ten days of April.

The return movement begins in August, and the greater number leave the United States in September. The last bird at Winfield, Kansas, was seen September, 26 1902. In northern Texas, the average is October 11, the latest, October 18, 1888. In central Texas, the average is October 18, the latest, October 20, 1892.

A few enter Louisiana, and they have been noted as arriving at New Orleans, March 25, 1894; the latest record being near Kenner, Louisiana, October 6, 1889.

The Scissor-tail is one of the greatest of wanderers. While its regular home

extends from eastern Louisiana to southern Missouri, central Kansas and south to central Texas, it has been noted as an accidental visitant in twelve of the United States and three Canadian provinces, from Florida and Colorado to New Brunswick and Hudson Bay.

VERMILION FLYCATCHER

This species winters in Mexico, so near the United States boundary that it sometimes appears in February (San Antonio, Texas, February 8, 1890; Oracle, southern Arizona, February 25, 1899). Usually, however, it enters Texas a month later, and the northern limit of the ordinary range, which is about at San Antonio, is reached the latter part of March. About the same time the birds enter their breeding grounds in the lower mountain valleys of Arizona. A few wander in winter to southern California, as far northwest as Ventura county. Stragglers have been taken in southwestern Utah, May 13, 1891, and in northwestern Florida, March 25, 1901.

The Common Names of North American Birds

IN preparing its 'Check-List of North American Birds' the Committee appointed by the American Ornithologists' Union showed excellent judgment in the selection of the 'common' or English names for our birds. With few exceptions the names adopted have met with general approval and are now in almost universal use. In this period of biblio-zoölogical activity little is now left of the scientific nomenclature of the first (1886) edition of the 'Check-List,' whereas the English names, not being subject to nomenclatural rules, have proved far more stable than the technical ones. Winter Wren, for example, is still Winter Wren, though from 1886 to 1907 it has been known as *Troglodytes hiemalis*, *Anorthura hiemalis*, *Olbiorchilus hiemalis* and *Nannus hiemalis*.

Only the specialist keeps informed of these changes, but the name Winter Wren is intelligible to all concerned. The consistent use of the English names of the 'Check-List'—and in BIRD-LORE we try to employ these names consistently—renders unnecessary for purposes of identification the use of the technical name. In the forthcoming edition of the 'Check-List,' therefore, it is hoped that the A. O. U. Committee will make only such changes in the common names of our birds as seem to be absolutely necessary. Where, however, the attempt to secure the adoption by the public of names given in the original edition of the 'Check-List' (e. g. Bartramian Sandpiper, House Finch, Wilson's Thrush) has failed, the name most commonly used should be accepted for the new 'Check-List.' Again, certain 'Check-List' names are so obviously inapplicable (e. g. Louisiana Tanager, Magnolia Warbler, Palm Warbler) that a change seems desirable. The subject is eminently one for popular discussion and BIRD-LORE will be glad to print the views of its readers.—ED.

Notes from Field and Study

Photographing a Loon

When I arrived at Spencer Bay, Moosehead Lake, last June, I was told that there was a Loon's nest on a small island three miles down the bay. The birds, they said, were in the habit of nesting there each summer. A few days later I was rowing around this island to find a landing-place, and was greatly surprised to see the old Loon, which I imagined far out on the lake, come scrambling out from under a pile of logs and dive into the water. This was my introduction to a bird which afterward gave me no little excitement when I attempted to take its picture.

My first chance to photograph the Loon presented itself two weeks afterward, as my guide and I were paddling down the bay on our way to a neighboring pond. The Loon's island lay directly in our

course, and, remembering my previous experience with the bird, I suggested that we try to photograph him. When we were within fifty yards of the island, I arranged the camera for an exposure at fifteen feet. The guide then paddled quietly up toward the place where I had seen the Loon dive into the water. Nearer and nearer we approached, until it seemed as if the Loon was not there, and that we were to be disappointed. Suddenly, with a great commotion, the old bird came scrambling off the nest and dove into the lake, as before splashing water right into the canoe, and startling me to such an extent that I hardly had enough presence of mind left to press the bulb.

Our calculations were upset completely by the bird's sudden retreat at the last minute. We had no idea that he would allow us to approach as near as we did. The camera was focused at fifteen feet,



LOON LEAVING ITS NEST

Note how the white neck-ring seems to cut the bird's head off; an apparently conspicuous mark, which, in effect, renders the bird less evident. Photographed by John S. Perry



PEARS EATEN BY STARLINGS

and, as a matter of fact, when the exposure was made, I could not have been five feet from my subject. It is no wonder then that the negative, upon development, showed only a gigantic splash and no Loon.

The experience gained from our first attempt, together with good luck, enabled us, in our second, to secure a picture, which, considering the subject, might be called a success. We employed the same tactics as before, except that we kept further out from the shore, and, having gained respect for the old fellow's rapidity of motion, set the shutter speed at one hundred and twenty-fifth of a second. This time, the Loon, when we started him, did not immediately dive into the water, but skirted the shore for a few feet, and, in so doing, gave me a better opportunity to expose my film at the right moment. How well I succeeded may be judged by looking at the picture itself.

I afterward attempted to photograph the Loon on the nest by means of a set camera, but was unsuccessful. The camera may not have been hidden skillfully enough to deceive so wary a bird as the Great Northern Diver. But another reason for my failure has been suggested to me by hearing the guides declare that in hot weather the Loon often leaves her nest for a long time, relying upon the hot

sun to keep the eggs warm. I am inclined to doubt this, and think that the cause of my not getting the picture was due to the extreme shyness of the bird.—JOHN S. PERRY, *Troy, N. Y.*

The Starling Eats Pears

In the early morning of October 17, 1907, the pleasing notes of Starlings were heard in a large pear tree close to the window of my home at New Brighton, Staten Island. I looked out cautiously and saw three Starlings engaged in eating the ripe pears. They were very noisy about it, and each seemed to think that the pears being devoured by the other two were better than its own, and they accordingly changed places several times. In a few minutes a large portion of each pear had been devoured, and the Starlings flew away. All the time they were busy, several House Sparrows sat within a foot or two, looking on, and, as on previous occasions, I observed that they had no fear of the Starlings. However, they knew better than to molest these comparatively new comers, and seem to be treated with indifference by the Starlings.

When the birds were gone, I climbed the tree and procured two of the pears, and it will be seen from the photograph that they were quite destroyed. Under the tree I found two other pears that had evi-

dently been eaten on a previous occasion. These fallen pears are quickly covered by *Prenolepis* ants, that may sometimes get the credit for the destruction first commenced by the Starlings. When critically examined, however, the work of the birds is very unlike that of the ants.

It is with regret that I present this photograph and damaging evidence, for it would be much pleasanter to say a wholly good word for the cheery-voiced Starling that adds so much to the interest of our rambles in town and country. Personally, I am quite willing to give the Starlings some pears in exchange for their entertainment, nor do we begrudge the few cherries that our native Robin eats every summer.

Mr. Clifford H. Pangburn has mentioned, in the expressions of opinion regarding the Starling printed in the last number of BIRD-LORE, that he has seen them eating decayed pples in winter; and Mr. James Chapin, referring to Mr. Heineken's published note, gives an account of the bird on Staten Island; but, to be strictly impartial, the pear-eating habit should be added in evidence. —WM. T. DAVIS, *New Brighton, Staten Island*.

A Contribution to the Subject of Bird Surgery

It is a well-known fact that at the close of the wild-fowl shooting season there are present a greater or less number of what sportsmen term 'cripples.' These are usually wing-broken birds which, deprived of the power of flight, are unable to join their more fortunate comrades in the return to a northern nesting-ground. Such birds are not known to breed, and, handicapped by the loss of flight, they generally fall prey to some enemy before the return of another shooting season.

The American Museum of Natural History has been presented with the humerus (reproduced herewith) of a Duck which met this fate. Attached to the bone is a label which reads: "Wing-bone of a Shell Drake, broken in December, 1891, at the head of River Pond by J. B. Payne of Smithtown, L. I. The bird escaped by crawling under a bog where he could not be reached. It was seen occasionally during the winter, and finally shot on March, 9, 1892, by A. W. Payne of Brooklyn, while in my company. The bird did not attempt to fly when found the last time. This is only to show what nature will do without the aid of surgery." (Signed) J. B. PAYNE.



HUMERUS OF A MERGANSER WHICH HAD BEEN BROKEN BY A SHOT.
A second shot may be seen embedded in the right end of the bone

"Nature," however, as will be seen from an examination of the specimen, made a very poor job of it. The growth of new bone is indeed remarkable, but, far from joining the ends of the fractured bone, it has forced them apart, rendering the wing useless, so far as flight is concerned.

The bone appears to be large for a Merganser, but without commenting on its size or the pathologic aspects of the case, I present it as an authentic instance in which a bird with a broken wing was evidently unable to set it. The usual fate of the crippled birds, referred to above,

their efforts to attract the birds around their homes. In the work in nature-study in the public schools of this city, the children have been encouraged to feed the birds in winter, and to provide nesting-boxes in the spring. But the almost universal report comes from the children that whatever they try to do for the birds proves of little avail on account of the interference of the English Sparrows. If food is put out, the Sparrows devour it and drive away the other birds; when nesting boxes are put up, the Sparrows occupy them at once, or, after other birds have begun to build



YOUNG HOUSE WREN JUST LEAVING A NEST WHICH HAS NOT BEEN MOLESTED BY THE ENGLISH SPARROW

leads to the conclusion that this is only one of many similar cases, and raises the inquiry if, as has been recently asserted, birds can and do set their leg-bones when broken, why do they not also employ their alleged surgical abilities in the repair of a far more important part of their anatomy? —FRANK M. CHAPMAN, *Englewood, N. J.*

The Fallacy of the Moving Bird-house

The English Sparrow has proven itself, in this locality, a quarrelsome, trouble-making nuisance, driving away our native birds and discouraging the children in

quarrel with the first inmates till they are driven away, so that the children are discouraged from making further efforts.

As this activity of the children in doing something for the birds is an important factor in the child's development, the author has sought for several years for some clue as to how the discouraging interference of the Sparrows might be avoided. Various devices in the method of constructing the bird-houses have been tried, but with no avail. Last year the author saw a suggestion which he hoped might prove successful, namely, that if the house were suspended the Sparrows would not

use it. In order to give this matter a fair test, the coöperation of the children was sought in those sections of the city where any native birds still remained. The matter was explained to the elder children of the schools, and they were asked to suspend their bird-houses by a spring or wire and to notice whether the English Sparrows interfered with them.

In the fall, statistics were obtained from the children concerning the results. Reports were received from 33 moving houses. In 26 of them birds began to nest, including 12 Bluebirds, 12 House Wrens, 3 Robins, 1 English Starling, and 6 English Sparrows. Of these six, two pairs reared their young, and others doubtless would have done so had they not been driven away by the children. Of the other twenty birds, only six reared their young. Of the fourteen that did not complete their nesting, six were driven away by the Sparrows. Of the six which did rear their young, three were attacked by the Sparrows, but were able to defend themselves successfully.

These experiences indicate that the moving house is a failure as a means of outwitting the English Sparrow. Indeed, much less difficulty was reported from the stationary houses. Out of 27 from which reports were received, birds began to build in 24 and successfully reared their young in 15, including 8 Bluebirds, 5 House Wrens, 1 Robin and 1 English Sparrow. Three pairs of Sparrows began to build, and three pairs of birds which had begun to nest were driven out by the Sparrows. As far as the author's own experience goes, the Sparrows seem to show a preference for the stationary house; but these reports indicate that the preference is a slight one, and that they quickly avail themselves of an opportunity to occupy a moving house if no others are near.

The majority of reports indicated that the Sparrows drove away the other birds simply from the generally quarrelsome nature of this troublesome nuisance, as, in most cases, the Sparrows did not remain to nest after driving out the first inmates.

In some instances, the Sparrow interfered with the House Wren, although the

openings were made so small that the Sparrows could not enter the house. They were reported as remaining near the box and worrying the Wrens as they were bringing nesting material, till the Wrens deserted the nest.

In all the author's experience, the English Sparrow has proven an unmitigated nuisance, and, apparently, the only effective way of getting rid of it is by use of the rifle or shotgun, although this method cannot, of course, be recommended to the children.

The only kind of nesting-box which the author has used, the inmates of which have never been troubled by the Sparrows, is one made of an old tomato can with a circle of wood, containing an inch hole, fitted into one end. The opening is so small and the house is so insignificant that, apparently, it seems beneath the notice of the Sparrow. A brood of Wrens has been reared in this for four successive seasons, and, during one summer, two broods were reared. Possibly, this might be a little safer from the attacks of the Sparrow if it were suspended by a wire.

Has any one found a successful method of outwitting the Sparrow other than killing it, which might be recommended to the use of the children?—GILBERT H. TRAFTON, *Supervisor of Nature Study, Passaic, N. J.*

Robins Nesting in Bird-houses

Five cases have been reported to the writer of the Robin's beginning to build in bird-houses, and one case of their successfully rearing their young. Three of these were in moving, and two in stationary houses. As these were the first cases of this kind to which the attention of the author had ever been called, he took special pains to investigate each case as much as could be done in the fall, and he was convinced that in two instances, at least, the reports had been correct. It will be worth while for students to experiment with houses containing opening large enough to allow the Robin to enter—GILBERT H. TRAFTON, *Passaic, N. J.*

Book News and Reviews

FUERTES' 'CALENDAR OF GAME BIRDS.'

—While the printing of an artistically designed little statement of days and months on each of the large sheets (18 x 14 in.) to which Mr. Fuertes' beautiful drawings are attached, makes this publication a 'calendar,' it might better be known as an album or portfolio of paintings of birds in nature.

The species represented are the Canvasback, Willow Ptarmigan in winter and in summer, King Rail, Sandhill Crane, Ruffed Grouse, Wood Duck, Upland 'Plover,' Bob-white, Mallard, Wild Turkey and Wild Goose. Acknowledged to be America's leading ornithological portrait painter, Fuertes has here reached a higher plane than that in which his drawings show only the bird. In these drawings he has placed his bird in the landscape, and the result is not merely a portrait but a picture. Long after this 'calendar' has been forgotten, these admirably reproduced paintings will continue to appeal to the nature-lover, who will appreciate the spirit of the bird and season they so strongly convey, while the lover of the beautiful will be attracted by their artistic excellence. The Calendar may be obtained from its publishers, Moffat, Yard & Co., or from L. A. Fuertes, Ithaca, N. Y. The price, carriage paid, is \$3.50.—F. M. C.

FEATHERED GAME OF THE NORTH-EAST. By WALTER H. RICH. With illustrations by the Author. New York. Thomas Y. Crowell & Co., 8vo. xvi+432 pages. Colored frontispiece. 82 full-page half-tones.

Practically all the Gallinæ, Limicolæ, Rallidæ and Anatidæ of northeastern United States are treated in this volume, and nearly every species is illustrated. While writing chiefly from the sportsman's point of view, the author shows a naturalist's interest in his subject, and much information is given concerning the habits of those birds whose misfortune

it is to be ranked as game. The book therefore admirably supplements those works which treat only of the land birds of the northeastern States.—F. M. C.

ALBUM DE AVES AMAZONICAS. ORGANIZADO PELO PROFESSOR DR. EMILIO A. GOELDI. . . . Desenhos do Ernesto Lohse. Suplemento illustrativo A' Okra 'Aves do Brazil.' pelo Dr. Emilio A. Goeldi.

With the issue of the third part, this important work is concluded. Designed to illustrate Dr. Goeldi's 'Birds of Brazil,' this album is also issued separately. It contains, in all, 48 quarto plates and illustrates 420 species, in many instances, both sexes being figured. The birds are exceptionally well drawn and, as a rule, satisfactorily colored, and, notwithstanding the fact that from ten to fifteen species are often placed on a single plate, they are so tastefully grouped as to produce a pleasing effect. Dr. Goeldi should be congratulated on his choice of an artist. No other work contains so large a number of colored illustrations of South American birds. We have here then an adequate pictorial exposition of one of the most remarkable of avifaunæ. This series of plates framed would make a capital museum exhibit where funds were lacking to secure specimens of the birds themselves.

The 'Album' was projected while Dr. Goeldi was director of the Museum Goeldi at Para. Since his resignation Dr. Goeldi has resided in Berne, Switzerland, where he may be addressed for further information.—F. M. C.

ABSTRACT OF THE PROCEEDINGS OF THE LINNAEAN SOCIETY. Nos. 17-19, 1904-07. Containing a List of the Birds of Long Island, N. Y. By WILLIAM C. BRAISLIN, M.D.

From an average attendance of nineteen in 1903, the number has arisen to thirty-four for the year ending March 12, 1907, and the figures are indicative of the increased interest which has been shown in

the meetings of the Linnæan Society. Standing for the more popular phases of natural history, particularly for field studies of the local fauna, the Society is deserving of far greater support from local naturalists than it now receives.

Dr. Braislin's paper occupies pages 31-123, bringing together for the first time the information in regard to the occurrence of birds on Long Island which has been gathered, most of it, by Linnæan members, since the publication of Giraud's book in 1844. The number of species listed is 364; but, subtracting two extinct and three introduced species and 2 (*Actodramas cooperi* and *Ægialitis meloda circumcincta*) that have no standing, we have 356 as the number of birds properly to be accredited to Long Island.

Dr. Braislin's list is authoritative; his annotations are to the point; references and exact migration dates are liberally given, and we wish he had also presented an analytical synopsis of the Long Island avifauna together with remarks on the confines of the faunal areas represented.—F. M. C.

RECENT PUBLICATIONS OF THE BUREAU OF THE BIOLOGICAL SURVEY OF THE UNITED STATES DEPARTMENT OF AGRICULTURE.

Each publication of the Biological Survey increases the indebtedness of ornithologists to this Bureau.

Sentiment is admirable in its place, but its place is assuredly not legislative halls, and, when the advocate of bird-protective measures appears before committees of Senate or Assembly, facts, not esthetics, win him a hearing.

The increasing number of facts in regard to the economic value of birds, gathered by trained specialists who are acknowledged authorities in their particular branches, which the Biological Survey is each year making accessible, form the most effective arguments which can be presented when urging the birds' claims to our attention.

Among the recent economic publications of the Survey, each one of which, through distribution or republication,

should have the widest possible circulation, are: Circular No. 56, 'Value of Swallows as Insect Destroyers,' by H. W. Henshaw; Circular No. 57, 'Birds Useful in the War Against the Cotton-Boll Weevil,' by H. W. Henshaw; Bulletin No. 29, 'The Relation of Birds to the Cotton-Boll Weevil,' by Arthur H. Howell; and 'Birds that Eat Scale Insects' (reprint from Yearbook of Department of Agriculture for 1906), by W. L. McAtee.

The Survey has also published a report, by Henry Oldys, on 'Cage-birds Traffic of the United States', in which it appears that the once large traffic in American birds for 'pets' has been suppressed, and that for the year ending June 30, 1906, we imported 322,297 cage-birds, of which 274,914 were Canaries and 47,383 various species, chiefly of wild birds.

The Survey's Department of Game Preservation, under the efficient care of Dr. T. S. Palmer, continues its good offices in unifying the work of game protectors by the publication of the following papers: Bulletin No. 28, 'Game Commissions and Wardens, Their Appointment, Powers and Duties,' by R. W. Williams, Jr., a book of nearly 300 pages; Farmers' Bulletin No. 308, 'Game Laws for 1907,' by T. S. Palmer, Henry Oldys and Chas. E. Brewster; a tabular chart showing the 'Close Seasons for Game in the United States and Canada,' by T. S. Palmer and Henry Oldys; Circular No. 62, 'Directory of Officials and Organizations Concerned with the Protection of Birds and Game, 1907,' by T. S. Palmer; from the Yearbook for 1906, 'The Game Warden of Today,' by R. W. Williams, Jr.; and 'Game Protection in 1906,' by T. S. Palmer.—F. M. C.

VERMONT BIRD CLUB, BULLETIN No. 2, Burlington, Vt., July, 1907-8vo., 35 pages.

The first and most important paper in this Annual Bulletin is by Mrs. E. B. Davenport, on the 'Birds of Windham and Bennington Counties.' An introduction conveys a clear impression of the leading physiographic and botanic features of the region, and is followed by a briefly annotated list of 176 species. This

list is based on long-continued observation, and has evidently been prepared with a thoroughness which will make it a guide for future workers as well as of unusual reference value.

Mr. Carlton D. Howe's 'Problems of the Vermont Bird Club' may be profitably read by others who have similar problems at heart. G. H. Ross describes the 'Nesting of the Winter Wren.' An excellent paper by Miss Isabel M. Paddock, in whose untimely death not only the Vermont Club but the science of ornithology has suffered a severe loss, is entitled 'Our Thrushes and Their Songs,' and is accompanied by musical notations.

Abstracts of other papers are 'Notes from a Bird Table,' by Marion Boll; 'A Warbler Guest,' by Emily L. and Susan E. Clark; 'Some Bird Acquaintances,' by Emma E. Drew. There is a report of the New England Federation of Natural History Clubs, by Miss Delia I. Griffin, of the Club's Field Meetings, and there are Bird Notes from various sources. —F. M. C.

MASSACHUSETTS AUDUBON SOCIETY'S CALENDAR FOR 1908.—The Massachusetts Audubon Society has reissued the plates which appeared in its Calendars for 1906 and 1907 in two Calendars for 1908. Each contains six plates; one illustrates the Pine Grosbeak, Saw-whet Owl, Catbird, Yellow-billed Cuckoo, Kingfisher, and Blue Jay, the other, the Black-throated Blue Warbler, Canadian Warbler, Northern Yellowthroat Ovenbird, Blackpoll and Myrtle Warbler.

The plates were printed in Japan from blocks made expressly for this purpose, and are tastefully mounted on cards $9\frac{1}{2} \times 14\frac{1}{4}$ inches, with descriptive text on the back.

The price of each Calendar is \$1.50, and orders should be sent to the Society at the Boston Society of Natural History.

The Ornithological Magazines

THE AUK.—A great bird catastrophe is recorded in the opening pages of the October 'Auk' by Dr. Thos. S. Roberts. A host of Lapland Longspurs overtaken,

while migrating, by a wet snowstorm on the night of March 13-14, 1904, perished in countless thousands in Minnesota and Iowa over an area approximating 1,500 square miles. The accompanying photographs of lake and lawn surfaces attest the magnitude of the tragedy, and yet, in spite of the destruction in a single night of a million or so birds of a single species, and this just before the breeding season, no perceptible diminution in their numbers has been observed. Truly, the bad man who collects birds may take heart!

A continuation of E. S. Cameron's paper on 'The Birds of Custer and Dawson Counties, Montana,' is accompanied as usual by several fine photographs; J. F. Ferry has 'Further Notes from Extreme Southern Illinois'; and A. T. Wayne offers 'Observations on Some Birds Procured near Charleston, S. C.' Mr. H. E. Bigelow describes in detail the plumage of four hybrid Mallards and Dr. W. Faxon and Mr. H. G. Higbee have each a word to say about recent specimens of the supposed hybrid, Brewster's Warbler.

The 'Summer Birds of Southwestern Saskatchewan' is an illustrated tale of the plains, by A. C. Bent,—and one well worth the telling; for the day may not be far distant when man, his cat, and the House Sparrow will have ousted from this region all species save those that can adapt themselves to the new conditions of civilization. With a minimum of shelter and concentrated breeding areas, it is not surprising that the bird population moves out when human population moves in.

The progress of Ridgway's, 'Birds of North and Middle America' is shown by a review of the fourth volume, and there is an obituary of Dr. Wm. L. Ralph, curator of the egg collection in the United States National Museum, who died July 8, 1907.

The latest rules in the game of names, as adopted at the Seventh International Zoölogical Congress, will be found at page 464. Everybody has always insisted on playing the game according to his own rules, and now a loud howl of

opposition may be expected from the estimated 10 per cent of dissenters who cannot square their scientific consciences with the heresies proposed in the new 'Article 30.'—J. D., Jr.

Book News

To the evergrowing list of defunct nature magazines must be added the name of 'Birds and Nature,' one of the best known and oldest publications of this class. In May last, the first number of a new series was issued in a form showing a marked improvement over earlier volumes, but evidently sufficient support was not received to warrant the issue of further numbers.

The 'Bleating' or 'Drumming' of Snipe (*Gallinago*) is the subject of an exhaustive paper by P. H. Bahr, in the Proceedings of the Zoölogical Society (1907, pp. 12-35). Mr. Bahr's experiments appear to prove that the sound is produced by the passage through the air of the outer feather on each side of the tail which, his observations of *Gallinago calestis* show, are spread forward beyond the remaining tail-feathers when the bird is bleating. The paper should be read by those who propose to investigate this subject.

Dr. T. S. Roberts contributes to 'A Pioneer History of Becker County, Minnesota' (Pioneer Press, St. Paul, Minn.) a compiled list of the birds of the county, numbering 262 species. Its annotations make it of value to the student of the birds of the region in question. An article on the 'Disappearing Birds and Game-birds of Becker County,' by D. W. Meeker, is included in the same volume.

Magazines which are taking an active part in the 'nature-fakir' campaign should make doubly sure that their own columns are free from errors of statement, the result of carelessness or inexcusable ignorance. For example, the magazine in which President Roosevelt has, with characteristic force, denounced those nature-writers who present fiction for fact, contains an article entitled 'The Mystery

of Bird-flight' in which we are informed with due authoritativeness that the Emu "flies, when at all, with the greatest difficulty"!

In the September issue of the Massachusetts 'Crop Report,' Mr. E. H. Forbush, under the title 'Statutory Bird Protection in Massachusetts,' reviews the history of bird laws in Massachusetts from 1632 to the present time, and adds suggestions for "needed legislation," in which he urges the abolition of spring and summer shooting, the issuance of a resident hunting license, the prohibition of the sale of game birds, the granting to wardens of the right of search, and the establishment of sanctuaries or reservations.

In the October, 1907, issue of 'The Museum News,' published by the Brooklyn Institute of Arts and Sciences, Mr. George Cherrie, of the Museum, gives an account of his visit to the caves of the Guacharo (*Steatornis caripensis*) in the mountains of Trinidad, which is not only a capital story of field experience, but adds considerably to our knowledge of the habits of this remarkable bird.

In addition to articles of local interest, 'British Birds' contains papers of a general character which may be read with profit by all ornithologists. In the November issue, for example, we find the third part of W. P. Pycraft's suggestive study of 'Nestling Birds, and Some of the Problems They Present' and also the third part of F. W. Headley's article on 'Wind and Flight.'

Witherby & Co., 326 High Holborn, London, W. C., have issued a prospectus of 'A Monograph of the Petrels' by F. Du Cane Godman. The work will be a large quarto, issued in five parts, the first of which will be ready in December, 1907. It will contain 105 hand-colored plates by Keulemans and is offered at the subscription price of £2, 5s per part, or £10, 10s for the complete work.

The Bulletin of the Charleston Museum (Vol. III, No. 6, Oct. 1907) contains a section devoted to the local fauna, in which are various ornithological notes of interest.

Bird-Lore

A Bi-monthly Magazine

Devoted to the Study and Protection of Birds
OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Edited by FRANK M. CHAPMAN

Published by THE MACMILLAN COMPANY

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Bird-Lore's Motto:

A Bird in the Bush is Worth Two in the Hand

THE twenty-fifth Annual Congress of the American Ornithologists' Union will be held at the Academy of Natural Sciences in Philadelphia, on December 10-12. Those of us who remember the first meetings of the Union realize with difficulty that its life extends over a quarter of the century in which distinctively American Ornithology may be said to have existed. In the Historical Preface to his 'Key to North American Birds' (1884), Coues divided the portion of this century which had then elapsed into Wilsonian, Audubonian, and Bairdian epochs. Assuredly, the succeeding epoch should be known as the Epoch of the American Ornithologists' Union.

The present widespread interest in the study of birds in this country may be largely attributed to the influence exerted by the Union, and every bird student should consider it a privilege to be connected with an organization to which he is so deeply indebted. Membership in the associate class is open to every American ornithologist, and applicants for admission may learn all needful details from Dr. J. Dwight, Jr., treasurer of the Union, 134 West Seventy-first Street, New York City.

DR. FIELD's article on the Heath Hen, published in this number of BIRD-LORE, emphasizes the largely haphazard manner in which the habits of North American birds have been studied. In spite of the

fact that the Heath Hen is a species of unusual interest and is on the verge of extinction, no one appears to have attempted to make a special study of its life-history until Dr. Field visited it in its home, which, by the way, is not a thousand miles from one of the centers of greatest ornithological activity in this country. Dr. Field's description of the notes of the strutting Heath Hen apparently shows that this eastern bird differs from the western Prairie Hen more in voice than in plumage. In the western bird the 'boom' is a strongly accentuated *boom-ah-boom* given with much apparent muscular effort, the head being jerked violently as the syllables are uttered.

WITH this issue we publish the first of a series of colored plates of North American Flycatchers. The series will doubtless be completed in the next volume of BIRD-LORE, and it is essential that we decide at an early date on the next family to be figured. A call for an expression of opinion on this subject issued in the last number of BIRD-LORE leaves the matter in doubt, and we shall be glad to receive additional suggestions.

NO ONE can glance through the annual report of the National Association of Audubon Societies and its allied Societies without being impressed by the scope and importance of its work. In addition to its legislative, protective and educational activities, the Association has inaugurated investigations of purely ornithological interest. We call attention, for example, to the report on the birds of Bird Key in the Dry Tortugas by Dr. Watson. The Association is to be congratulated that, while acting as its warden, Dr. Watson made the first adequate study of the life of a bird community, from the opening to the close of the nesting season. For three months he lived day and night with the subjects of his researches, and we are assured that the results of his labors, which will be published by the Carnegie Institution, will add much to our knowledge of bird-life.

The Audubon Societies

SCHOOL DEPARTMENT

Edited by MABEL OSGOOD WRIGHT

Address all communications to the Editor of the School Department, National Association of Audubon Societies, 141 Broadway, New York City

FOR DECEMBER—SIX REMINDERS

(1) Be sure that there is a heap of brush or corn-stalks somewhere about the place. If you live near cedar woods, cut half a dozen small trees and fasten them securely against a fence or shed on the south side.

If you have a pile of logs or kettle-wood at hand, thatch it loosely with either corn-stalks, hemlock or cedar boughs,—then you will have the Winter Wren and half a dozen other birds as permanent lodgers. Many perching birds in winter prefer to roost upon something broad and flat, where they can huddle and squat rather than perch.

(2) Be sure that your trays or tree-boxes for holding bird-food are perforated at the bottom, so that moisture can get through and not freeze. The boarders will find their meals chilly enough without having them literally put in cold storage.

(3) Be sure to vary the food, and when possible grind up some meat scraps in your meat-chopper and mix it with the cracked corn and dog-biscuit on very cold days and after a storm. At these times of peril, some freshly boiled potatoes or rice (the usual salt being omitted) will be much appreciated.

(4) Be sure to set a pan of water in a sunny spot every day, no matter how cold the weather is; there will be at least an hour when the birds will be able to drink.

(5) If you have undertaken to feed game birds either in natural or artificial cover that is at some distance from your house, be sure that it is done regularly. A little experience will tell you how long the rations will last. If, as I hope, you have a feeding-box for the smaller birds near the school-house, always remember to provide an extra supply of food there on Friday, so that Sunday need not be a fast, instead of a feast day.

(6) Be sure to begin the New Year by keeping an outdoor diary if you have never done it before,—the best memory is treacherous. A simple book with three days to a page will suffice. Do not write long descriptions, as these are awkward for reference. Jot down the names of birds or other objects seen, the kind of weather and any other incidents as briefly as possible. Then, when you open the book later on, the details will group themselves about this framework of accuracy.—M. O. W.

THE HERRING OR HARBOR GULL

By MABEL OSGOOD WRIGHT

The National Association of Audubon Societies

EDUCATIONAL LEAFLET NO. 29

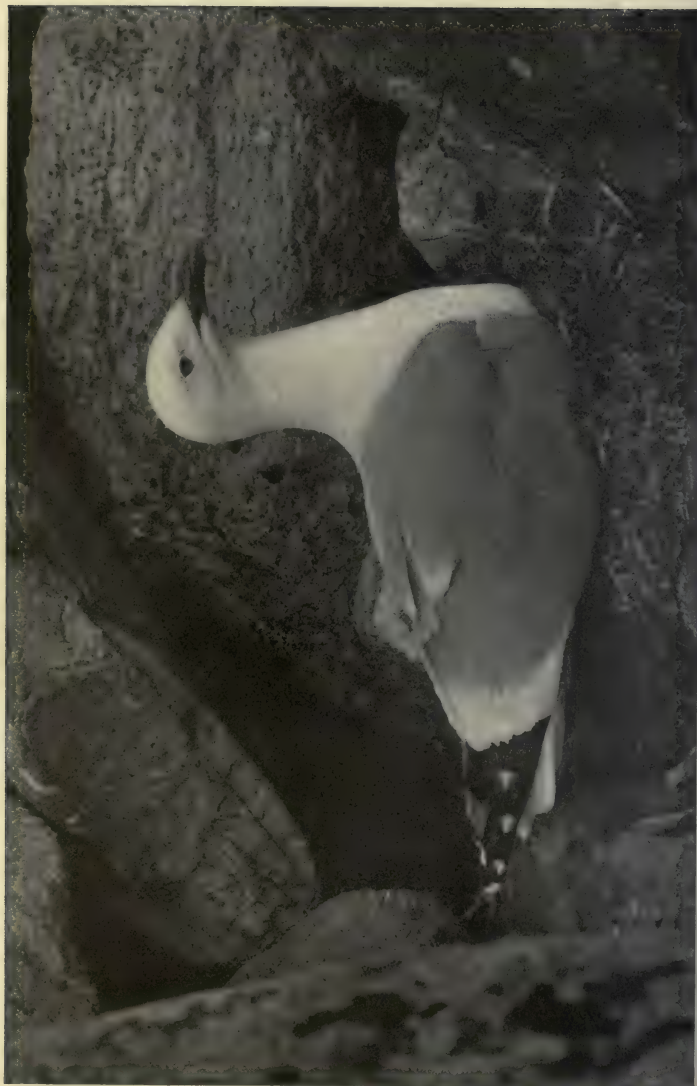
The Sandpipers have ended their pretty courtesies, and no longer patter to and fro upon the beaches and river edges. The flocking Swallows have finished their fall manœuvres and left the marshes, and the Wild Goose arrows no more flock the sky. But white wings are bending over the crested waves, and the clamor of call-notes comes from bar and shore,—the high-pitched cry of the Harbor Gull.

The Gull's Season If there is any one kind that deserves the title of our National Water Bird it is this Harbor Gull, for it is to be found in the Northern Hemisphere wherever there is a sufficient body of water to yield it food. For the three or four months of the year that are its breeding season, it may be seen only northward from Maine, the Great Lakes, Minnesota and British Columbia, and in the northern parts of the Old World; but for the rest of the year the Harbor Gulls travel southward as far as Cuba on the east, and lower California on the west; and, in Europe, southward to the Mediterranean; in great flocks or only small groups stopping to winter as regularly in certain haunts as the migrant song-birds return in spring to their old nesting-places.

The Gull's Plumage The Harbor Gull, like some of its land brothers, has two changes of plumage in the year. The full-grown bird in summer wears a beautiful pearl-gray cloak, with black and white markings on the wings, all the under plumage being of the purest silver white, of dazzling brilliancy. The bill runs straight out from the head and is strongly hooked at the end, while the four-toed feet are webbed, and fit the bird for resting on the water and swimming with all the ease of a Duck, though without its swiftness. In winter plumage, the old bird's head is streaked with gray and brown, while the young bird of the year is generally grayish brown, streaked and spotted on the upper parts, the breast and belly being marked with rusty brown and gray, in the combination seen in some of our Hawks.

The name Herring Gull was given to this bird beforetime, because, as they were originally fishermen by trade, their presence flying above the water told where schools of herring were to be found.

The Value of Gulls to Man Today the schools of herring are less plentiful along our shores, and the value of this Gull, though greater than ever, is due to a different source. Coming familiarly about the harbors of great cities, frequenting the beaches after the summer throngs of pleasure-seekers have left, the Gulls become the health-officers of the coast, gleaning not



HERRING OR HARBOR GULL

only the refuse of shore and vessel but of cities as well, when the sea-going garbage scows disgorge their loads

Nature never creates a useless type, and even so wise a man as our scientific and far-seeing Dr. Oliver Wendell Holmes was mistaken when he wrote of this bird,

"Such is our Gull; a gentleman of leisure,
Less fleshed than feathered;—bagged you'll find him such;
His virtue, silence; his employment, pleasure;
Not bad to look at, and not good for much."

This verse is doubly surprising when you realize that our medical poet must have daily seen the Gulls at work as scavengers in the nearby Charles river. It is another warning about careful seeing, for to overlook an important point is as misleading as to get the habit of seeing what you would like to see in nature, rather than what is there.

Of the thousands of people that see this Gull as a winter bird, comparatively few know of its home life during the season when it has left us and the first breath of warm weather drives the Gulls northward.

As a Gull's chief food is gleaned from the sea, it must nest as close as possible to its source of supply. You can easily see that so large a bird could never be free from annoyance on our bathing beaches or off-shore islands that are used as summer resorts; so, as people flocked to the shore, more and more, the places where Gulls might nest in comfort grew fewer and fewer, and they were driven to the remote islands like those off the Maine coast, Great Duck Island, No-Man's-Land, and others, and it is at Great Duck Island that is to be found the largest colony of Gulls within the United States.

But even here and on many lesser islands, with only lighthouses and their keepers for company, where there were no summer cottages or pleasure-seekers, until a few years ago, the Gulls were not safe, for they, like the White Herons of the South, were bonnet-martyrs. These beautiful white breast-feathers were made into feather turbans. Perhaps, on one side of these, a smaller cousin of the Gull, the Tern, or Sea Swallow, with its coral-red beak, would be perched by way of finish. Or else, soft bands made of the breast, and some of the hand-somest wing-quills were used for trimming.

Not only were these feathers sold wholesale to the plume merchants and milliners, but people who went to the coast resorts would buy them of the sailors simply because they were pretty, without giving a thought to the lives they cost, or of how desolate and lonely the shores would be when there were no more Gulls.

They are very sociable birds at all times of the year, keeping in colonies even in the breeding season, a time when song- and other land-birds pair, and prefer to be alone. Trees are sometimes used for nesting but the ground is the usual place. The nests, when on the ground or upon flat rocks, are built

The Gull
at Home

of grass, mosses, seaweed, and bits of soft driftwood formed into a shallow bowl. If the edges of this crumble or flatten while the birds are sitting, they use bunches of fresh grass or seaweed to keep it in repair, with the result that the nest is not only a very tasteful object, but it blends perfectly with its surroundings.

The eggs are very interesting because no two are of the same color, being of every shade of blue and gray, from the color of summer sky and sand to the tint of the many-colored, water-soaked rocks themselves. The markings

The Gull's Eggs

vary also in shape and size, and are in every shade of brown, through lilac and purple, to black. The parents are very devoted to their nests, and take turns in sitting. When the young are first hatched, though covered with down, they are very weak in the neck and helpless; but in the course of a few hours the little Gulls are strong enough to walk, and the instinct to hide at the approach of anything strange comes to them very suddenly, so that a Gull only three or four hours old will slip out of the nest, and either hide beneath a few grass blades or flatten itself in the sand,

The Young Gull

where, owing to its spotted, color-protective down, it is almost invisible, so well does Nature care for her children—provided that man does not interfere. When a Gull nests in a tree, however, the little birds, not feeling the same necessity for hiding, do not try to leave the nest until the growth of their wings will let them fly.

On the sea beaches, squids and marine refuse are fed to the young Gulls, but where they have nested near fresh, instead of salt, water many insects gleaned from the fields are eaten.

It was in the Gulls' nesting season that the plunderers chose to go to their island haunts, steal the eggs, and kill the parent birds, whose devotion, like that of the White Heron, left old the birds at the mercy of the plume hunters.



GULLS FOLLOWING GARBAGE SCOW IN NEW YORK HARBOR

The Gull in the Winter

At the end of summer, the young, wearing their speckled suits, are able to join the old in flocks, and it is then that they scatter along the coast, some going from the northern borders down to the Great Lakes. In and about New York City, they are one of the features of the winter scenery; as they fly to and fro under the arches of the great bridge, and follow the ships the entire length of the harbor, and out to sea. At night, they bed down so close together that in places they make a continuous line of feathers on the waters of the reservoirs and in the sheltered coves of the Hudson. From the banks of Riverside Park, any autumn or winter afternoon, so long as the channel is free from ice, they may be seen flying about as fearless as a flock of domestic Pigeons.

Hear what Mr. Forbush has to say of these birds of the sea-mist and spray:

"The true Gull of the sea, the spirit of the salt, is a sort of feathered bell-buoy and thus is of use to the sailors, as there is ample testimony to prove.

"In summer, in thick weather, the appearance of Gulls and Terns in numbers, or the sound of their clamorous voices, give warning to the mariner that he is near the rocks on which they breed. Shore fishermen, enshrouded in fog, can tell the direction of the islands on which the birds live by watching their undeviating flight homeward with food for their young. The keen senses of sea-birds enable them to head direct for their nests, even in dense mist.

"Navigators, approaching, their home ports during the seasons of bird migration, welcome the appearance of familiar birds from the land. . . .

"Sea-birds must be reckoned among the chief agencies which have made many rocky or sandy islands fit for human habitation. The service performed by birds in fertilizing, soil-building, and seed-sowing on many barren islands, entitles our feathered friends to the gratitude of many a shipwrecked sailor, who must else have lost his life on barren, storm-beaten shores."

Questions for Teachers and Students

At what season do Gulls visit your vicinity? What kind of Gulls do you find? Where do they pass the summer? What is the difference in color between the adult Harbor Gull and that of the young, born the preceding summer? What is the range of the Harbor Gull? How are Gulls of value to man? Why were Gulls destroyed? How do Gulls nest? Describe the appearance and actions of young Gulls. Of what use are Gulls to sailors?

The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by WILLIAM DUTCHER

Address all correspondence, and send all remittances for dues and contributions, to the National Association of Audubon Societies, 141 Broadway, New York City

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Annual Meeting of the National Association

The third annual meeting of the National Association of Audubon Societies was held October 29, in the American Museum of Natural History, New York City. Members were present from Massachusetts, Connecticut, New York, New Jersey and North Carolina.

The treasurer's report showed that the income of the Society during the year had been \$17,978.53 and that the expenditures were \$26,843.43, making a deficit of \$8,864.90. This condition arose from

the fact that legislative expenses were very heavy during the past year, and it was also necessary to help several of the State Societies to carry on their local work. Further, the Society received only six months' interest on its endowment fund, as none of the investments of the Society were made early enough in the year to permit it to receive a full year's interest.

The Society now holds mortgages amounting to \$316,000 on six pieces of New York City property. Each title is guaranteed by a Title Guarantee Company. None of the loans exceeds two-thirds of the appraised value; the said

values being certified to by the most conservative and well-known appraisers in New York City. All of the loans pay 5 per cent interest and are non-taxable.

The President gave a synopsis of what had been accomplished during the year 1907, and outlined some of the plans for 1908. For details of his report, together with the reports of the State Audubon Societies and other matters of interest, readers are referred to the complete report which follows in this number of BIRD-LORE. After December 15, members of the Association can receive separates of the annual report and financial statement on application at the office, 141 Broadway, New York City.

The following Directors were elected to serve for a period of five years, being the class of 1912: Mr. F. M. Chapman, New York; Mr. Witmer Stone, Pennsylvania; Dr. Hermon C. Bumpus, New York; Mr. Frederic A. Lucas, Brooklyn; Mr. Carlton D. Howe, Vermont.

A resolution approving the work of the United States Bureau of Biological Survey, and calling upon Congress to amplify the work of the said Bureau, was unanimously passed, and it was further resolved that the secretary send a copy of the resolutions to every member of the next Congress.

Subsequently a meeting of the Directors of the Society was held, when the following officers were elected to serve for one year: President, William Dutcher; First Vice-president, John E. Thayer; Second Vice-president, Dr. T. S. Palmer; Secretary, T. Gilbert Pearson; Treasurer, Frank M. Chapman. Mr. Samuel T. Carter, Jr., was reappointed counsel for the Society.

The President appointed the following Standing Committees: Executive Committee—Dr. J. A. Allen, Dr. George Bird Grinnell, Mr. F. A. Lucas, Mr. F. M. Chapman.

Finance Committee—Dr. Hermon C. Bumpus, Mr. John E. Thayer, Mrs. C. Grant LaFarge, Mr. F. M. Chapman.—T. GILBERT PEARSON, *Secretary*.

The Protection of the Heath Hen

Dr. Field, whose article on the Heath Hen in this number of BIRD-LORE will be read with interest, reports that in addition to practical and most valuable assistance by J. E. Howland, Captain B. C. Cromwell, and many others, contributions for the purchase of land for a reservation on Martha's Vineyard have been pledged as follows:

William Brewster.....	\$100
F. S. Pearson.....	100
G. B. Clark.....	100
John E. Thayer.....	100
H. H. Fay.....	100
S. M. Weld.....	100
Frank E. Peabody.....	100
L. D. Baker.....	100
Arthur F. Whiting.....	108
Judge F. C. Lowell.....	100
Dr. John C. Phillips.....	100
R. C. Robbins.....	100
Gardner M. Lane.....	100
Dr. B. H. Kidder.....	100
Hon. Herbert Parker....	100
Anawan Club.....	50
R. L. Agassiz.....	50
Hon. A. P. Gardner.....	25
Dr. Gorham Bacon.....	100
Harriet E. Freeman....	5
Middlesex Sportsman's Association.....	200
National Audubon Society.	100

For Making Fire Stops—

Town of Tisbury (at last annual town meeting) .	250
Town of W. Tisbury (at last annual town meeting).....	50
	<hr/> \$2,338

Inasmuch as under these conditions every dollar contributed for the purchase of land adds at least one acre, it is hoped that sufficient funds may be raised to secure extensive tracts as refuges for the Heath Hen, Least Tern, Upland Plover and other birds which still resort to this island.

Contributions may be forwarded to the Commissioners on Fisheries and Game, State House, Boston.



ROYAL TERNS, BATTLEDORE ISLAND, LA. ONE RESULT OF AUDUBON WORK IN LOUISIANA

Annual Report of the National Association of Audubon Societies for 1907

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REPORT OF THE PRESIDENT

By WILLIAM DUTCHER

INTRODUCTORY

MEMBERS OF THE NATIONAL ASSOCIATION: Stevenson says: "It is a golden maxim to cultivate the garden for the nose, and the eyes will take care of themselves. Nor must the ear be forgotten; without birds, a garden is a prison-yard."

I take it that the province of your President is to present to you annually a concise statement of what the Association has done to prevent this country from becoming a vast prison-yard through lack of birds.

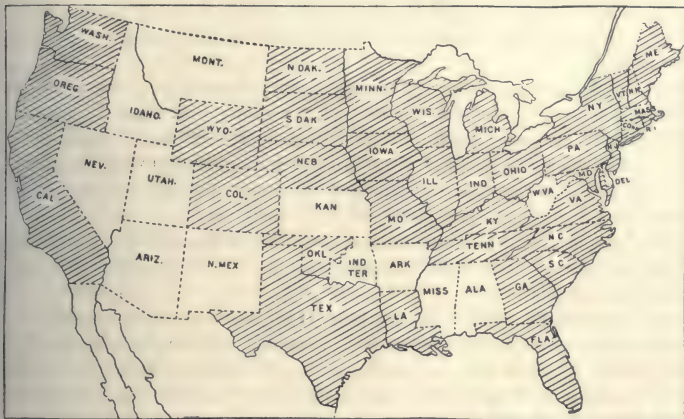
The Association is now in a strong and vigorous condition, and is well equipped to conduct an aggressive and progressive campaign for wild-bird and animal protection through the several channels of work which it has followed since its organization. This does not mean that it has reached the place that it intends to occupy in the world of economics and philanthropy, but it has made such a splendid beginning that those interested in this Society have every cause to con-

gratulate themselves on the position we now occupy. We are no longer an experiment, but are a dominating factor in good civics. With an endowment, safely invested, of nearly one-third of a million dollars, we have no fear for the future. I do not wish this train of thought to mislead our members or the public, for we are not yet endowed sufficiently, and we have but a very small part of the membership that we should have in order to do our best work. We have the experience and the equipment, and could largely increase our results did our own means allow expansion. The membership of the National Association still remains under 1,000, notwithstanding the strong efforts that have been made to increase it. The cause we advocate is so closely connected with the agricultural and forestry interests of the country that it is one of the most important now before the public. When we try to realize the enormous sum that is lost to the country through insect and rodent pests, which the Government experts tell us amounts to \$800,000,000 annually, we are lost in wonder at the apathy of the public. If a million or more dollars are lost through the mismanagement of a bank or other fiduciary institution, it creates a wave of protest throughout the entire country; yet a yearly loss equal to the entire capitalization of the national banks of the country creates no comment whatever, simply because the public do not realize what is going on. How to excite an interest in this important matter is the function of this body, and to do it successfully we need more money and a largely increased membership. In this connection, it is proper to mention a misapprehension that has arisen in the minds of some persons, notably among some of our oldest and heretofore most liberal contributors. They evidently believe that, as the Association has an endowment, there is no need for further funds with which to carry on the work. There certainly cannot be a more mistaken idea than this. As a matter of fact, as the Society grows older and more widely known, the demands upon it become daily more exacting and its opportunities for doing good increase far more rapidly than its resources. Our outlay during the past year was some thousands of dollars more than our income, but the demands upon us were of such vital importance that they could not be overlooked. Had we not responded, the cause of bird protection would have suffered a setback which would take years to overcome.

Right here is the proper time to emphasize the need for a far larger field staff: many parts of the country that need educational work cannot be touched, owing to the inability of this Association to set aside the necessary funds to employ additional expert aid.

We have reached the extreme limit possible until our income is largely increased. Here is an opportunity for some of the wealthy philanthropists of the country to place some of their riches where it will be doing the greatest amount of good.

To what object could a person contribute where the results for good would be greater?

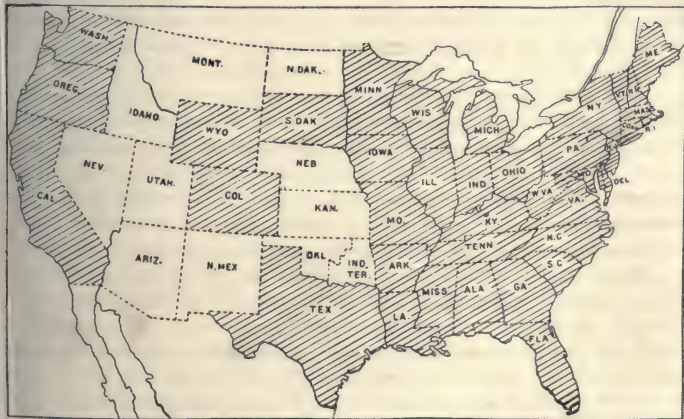


MAP SHOWING STATES (SHADED) HAVING AUDUBON SOCIETIES

We teach people to protect wild life, thus making men, women and children kinder and better citizens.

We teach the value of birds to the agricultural and forestry interests of the country, and thus instruct citizens in economics.

We teach of the live bird or animal in plain simple words, thus giving the rural populace, especially, an interest in nature, which never fails to brighten and broaden human lives.



MAP SHOWING STATES (SHADED) IN WHICH THE MODEL LAW IS IN FORCE

We stand for the rights of our fellow citizens, the wild birds and animals, and demand just and uniform laws for their protection, and also their rigid enforcement.

We stand for the principle of non-political appointments in the office of Game Commissioner, and recommend that such offices shall be filled by scientific experts who alone are capable of securing the best and most lasting results.

We stand for civil service in the appointment of game wardens; they should pass a satisfactory examination showing fitness for the position, and should be continued in office during good behavior.

We emphatically stand for the abolition of spring shooting of any kind, on the ground that the practice is wasteful and is the reason for the rapid decrease of many species of birds.

We recommend very short open seasons for hunting and a small bag limit. We urge that, when satisfactory scientific evidence is presented that any species of game bird is in danger of extermination, laws be enacted making a close season for the said species, in order that recuperation may take place.

We urge the passage of laws providing for gun licenses, in order to curtail as much as possible hunting by irresponsible persons, and also to provide ready means of identification of hunters who violate bird and game laws or commit trespass on posted lands.

We also urge such laws for the purpose of providing funds for protection and propagation of game, and to render unnecessary the levying of taxes for such objects.

We urge the passage of laws prohibiting the cold storage of game of any kind.

We urge Federal protection for all migratory birds, for the reason that it is practically impossible to secure uniform State laws in time to prevent the disappearance of several species of birds that are now known to be on the verge of extinction.

We urge the enlargement of the Biological Survey, on the ground that the statistics and information relative to birds and animals furnished by this Bureau of the Department of Agriculture is absolutely necessary for the farmers of the country. The educational work of this Association would be seriously handicapped were the scientific investigations of the Biological Survey to cease. This Association has no criticism to offer regarding the amount of public funds expended for the protection of the country against possible foreign attacks, but it believes that a more liberal appropriation for the Biological Survey would be a wise investment. The meager sum now appropriated annually, some \$60,000, is exactly the amount which it costs to manufacture one 12-inch, 45 caliber, nickel-steel gun. The cost of firing this gun one time is \$220 for powder and \$190 for a battle shell. The \$60,000 expended for the Biological Survey furnishes information regarding the economic value of birds which saves millions of dollars annually to agriculture and forestry. We, therefore, respectfully but emphatically

urge an increased appropriation for the Survey, in order that it may more rapidly continue its important work.

RESULTS ACHIEVED IN 1907

Special Agents.—It is always a difficult matter to place in concrete form successes achieved in a given time by a moral movement, as many of them are in some degree intangible. However, so much actual progress has been made during the past year that it will be hard in the future to keep up the same ratio of progress. The greatest gain of the year has been the enlargement of the field staff of the Association. Before the present year, our able and earnest Secretary, Mr. Pearson, did a large part of the organization work; in fact, almost his entire time was occupied this way. It cannot be questioned that the very best results are to be obtained by the employment of trained men and women to carry to the public the propaganda of wild-bird and animal protection. It is absolutely necessary that the organizer should have a good knowledge of birds and animals, especially in respect to their economic relations to the human race; moreover, he or she must be an enthusiast whose whole mind and powers are engrossed in devotion to the Society and its work. Such qualities are hard to find, but we know that this Association has found them, or the results secured by the field staff would not have been as great as they are. A brief review is in order:

Mr. Pearson, in addition to the valuable work he did in his home state, North Carolina, where he is the moving spirit of the Audubon Society, conducted an exploration along the coasts of South Carolina and Georgia, securing much needed information regarding the birds of that section. He secured the passage of an act in the legislature of South Carolina conferring upon the Audubon Society the powers and duties of a Game Commission; he conducted an investigation with a view of suppressing cage-bird traffic in its last stronghold; he visited a number of Audubon Societies in the western states, giving them encouragement and advice, while on a trip to the Yellowstone Park in Wyoming, where he attended one of the most important meetings held during the year—the biennial session of the National Association of State Game Wardens and Commissioners. It is of vital importance that this Association have the closest affiliation with all state game officials, as the objects sought by each are identical. He did excellent and valuable service in behalf of the Biological Survey at the last session of Congress, and, finally, was instrumental in securing the passage of resolutions at the International Conference of Cotton Growers, in Atlanta, Ga., demanding the protection of wild birds, and calling on Congress to continue the Biological Survey with increased appropriations, in order that it may more rapidly determine the economic relations of wild birds to agriculture.

Mr. Edward Howe Forbush, ornithologist of the Massachusetts Board of Agriculture, and now in charge of Audubon interests in the New England States for this Association, accomplished results of splendid proportions. He

was instrumental in securing legislation in New Hampshire, Massachusetts and Connecticut of the most advanced character; the legislative work in the last-named state continuing over a period of five months. He gave a series of educational lectures, reaching hundreds of people, many of them teachers. He contributed to the literature of bird protection two of the most important and valuable ornithological publications that have ever been presented to the public, both of which will exert a great influence. He did yeoman service in behalf of the Biological Survey, and has pushed Audubon work to the fore in his territory by aggressive and progressive methods.

Mr. Henry H. Kopman, one of the leading ornithologists of the Gulf states, who commenced his services for this Association May 15 last, has accomplished in a very short period results of great importance. He conducted a bird survey on the Louisiana coast, west of the Mississippi delta, with results already presented in *BIRD-LORE*, which paved the way for two additional reservations. He has lectured before hundreds of planters in Mississippi at farmers' institutes, showing the importance of bird protection. He is now engaged in organizing a Mississippi State Audubon Society, with every prospect of forming a strong and influential body of the best citizens of the state. He has prepared and is widely circulating a large amount of valuable educational matter, among the most important of which is a series of papers regarding the value of birds, which is appearing in the press of his section; and, finally, he is preparing an exhibit of Audubon methods and literature for the Mississippi State Fair, which will be seen by thousands of citizens and cannot fail to exert a great and far-reaching good.

Mr. William L. Finley, the well-known bird student and photographer of the Northwest, has given us a small portion of his time during which he has exerted a valuable influence in his section. He has contributed largely to the press in Oregon and Washington, and has delivered many illustrated lectures on bird subjects. He was instrumental in preventing the repeal of the Model Law in Oregon. He aided very largely in the organization of the Washington Audubon Society, and also gave a series of lectures under the auspices of the Association before the Audubon Societies in Michigan, Indiana, Illinois, Missouri, and Minnesota. His illustrated magazine articles on bird life attract widespread attention and lead to a greater interest in the live bird and its home life.

Miss Mary T. Moore, of North Carolina, who has lately joined the field staff of this Association, has been conducting a series of farmers' meetings in her home state, which cannot help but raise the standard of intelligent appreciation of the value of birds. The work she is doing is not merely economic, but is of value in the homes of the people, as it reaches the fireside and interests the mothers and children, thus attracting them to nature and her beauties.

The foregoing represents a part of what was accomplished by the field-staff during the past year, but there is no way to tell you in words of the beneficent influence which is rapidly growing wherever the staff has worked.

THREE ARCH ROCKS RESERVATIONS

For Protection of Native Birds

OREGON—Embracing all small islands off the Oregon coast segregated by broken line and designated "Three Arch Rocks Reservation"

Department of the Interior, General Land Office, Richard A. Ballinger, Commissioner

Diagram attached to and made a part of the Executive Order dated October 14, 1907

**Executive Order**

It is hereby ordered that the group of small unsurveyed islands known as the "Three Arch Rocks," located in the Pacific Ocean from one-half mile to one mile off the coast of Oregon, approximately in latitude 45° 28' north, 124° west from Greenwich, as shown upon the United States Coast Survey Chart No. 6100, and located within the area segregated by a broken line and shown upon the diagram hereto attached and made a part of this order, is hereby reserved and set aside for the use of the Department of Agriculture as a preserve and breeding ground for native birds and animals. This reservation to be known as Three Arch Rocks Reservation.

THEODORE ROOSEVELT

THE WHITE HOUSE,

October 14, 1907

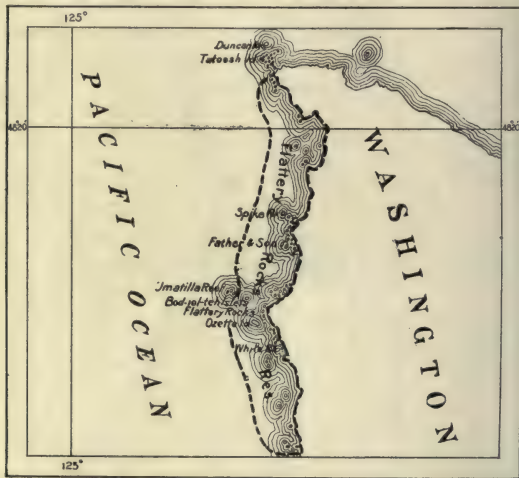
FLATTERY ROCKS RESERVATION

For Protection of Native Birds

WASHINGTON—Embracing all small islands off the Washington coast segregated by broken line and designated "Flattery Rocks Reservation"

Department of the Interior, General Land Office, Richard A. Ballinger, Commissioner

Diagram attached to and made a part of the Executive Order dated October 23, 1907



Executive Order

It is hereby ordered that all small, unsurveyed and unreserved islands lying off the coast of the State of Washington in the Pacific Ocean, between latitudes $48^{\circ} 02'$ North and $48^{\circ} 23'$ North, among which are those named and commonly known as Spike Rock, Father and Son, Bodiel-teh Islets, Flattery Rocks, Ozette Island and White Rock, as the same are shown upon coast survey chart No. 6400, or upon the General Land Office map of the State of Washington, dated 1887, and located within the area segregated by a broken line and shown upon the diagram hereto attached and made a part of this order, are hereby reserved and set aside for the use of the Department of Agriculture, as a preserve and breeding ground for native birds and animals. This reservation to be known as Flattery Rocks Reservation.

THE WHITE HOUSE,
October 23, 1907

THEODORE ROOSEVELT

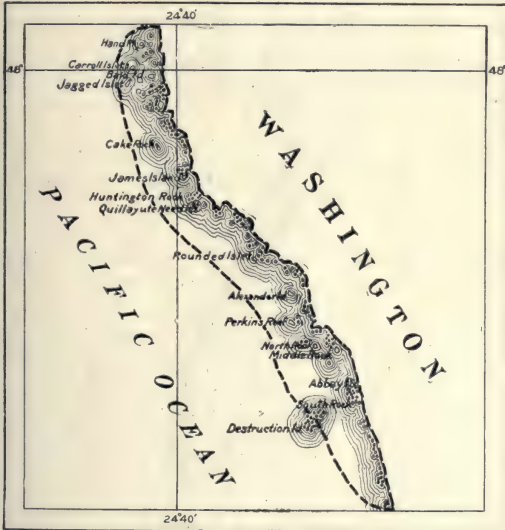
QUILLAYUTE NEEDLES RESERVATION

For Protection of Native Birds

WASHINGTON—Embracing all small islands off the Washington coast segregated by broken line and designated "Quillayute Needles Reservation"

Department of the Interior, General Land Office, Richard A. Ballinger, Commissioner

Diagram attached to and made a part of the Executive Order dated October 23, 1907

**Executive Order**

It is hereby ordered that all small, unsurveyed and unreserved islands lying off the coast of the State of Washington in the Pacific Ocean, between latitude 47° 38' North, and 48° 02' North, among which are those named and commonly known as Hand Rock, Carroll Islets, Bald Island, Jagged Islet, Cake Rock, James Island, Huntington Rock, Quillayute Needles, Rounded Islet, Alexander Island, Perkins Reef, North Rock, Middle Rock, Abbey Island and South Rock, as the same are shown upon coast survey chart No. 6400, or upon the General Land Office map of the State of Washington, dated 1887, and located within the area segregated by a broken line and shown upon the diagram hereto attached and made a part of this order, are hereby reserved and set aside for the use of the Department of Agriculture as a preserve and breeding ground for native birds and animals. This reservation to be known as Quillayute Needles Reservation.

THEODORE ROOSEVELT

THE WHITE HOUSE,
October 23, 1907

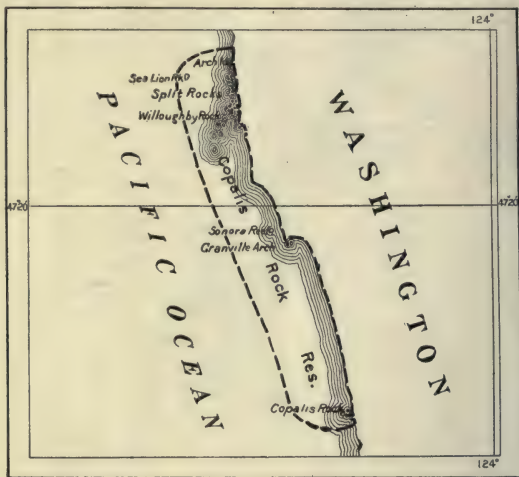
COPALIS ROCK RESERVATION

For Protection of Native Birds

WASHINGTON—Embracing all small islands off the Washington coast segregated by broken line and designated "Copalis Rock Reservation"

Department of the Interior, General Land Office, Richard A. Ballinger, Commissioner

Diagram attached to and made a part of the Executive Order dated October 27, 1907



Executive Order

It is hereby ordered that all small, unsurveyed islands lying off the coast of the State of Washington in the Pacific Ocean, between latitudes $47^{\circ} 8'$ North, and $47^{\circ} 29'$ North, among which are those named and commonly known as Arch Island, Sea Lion Rock, Willoughby Rock, Split Rocks, Sonora Reef, Greenville Arch and Copalis Rock, as the same are shown upon coast survey chart No. 6400 or upon the General Land Office map of the State of Washington, dated 1887, and located within the area segregated by a broken line and shown upon the diagram hereto attached and made a part of this order, are hereby reserved and set aside for the use of the Department of Agriculture as a preserve and breeding ground for native birds and animals. This reservation to be known as Copalis Rock Reservation.

THEODORE ROOSEVELT

THE WHITE HOUSE,
October 23, 1907

Reservations.—One of the most important results secured by this Association since its organization has been the large number of reservations set aside as bird refuges and breeding homes by President Roosevelt. During the present year, six have been added, all of which are the ancestral homes of birds, and they will, in the future, be under the direct supervision of the United States Department of Agriculture. It is our function to investigate and discover bird-breeding islands, rocks and keys; the locality and number and species of birds is reported to the Department of the Interior, at Washington, and, if the property still belongs to the Federal Government, an order is prepared for the signature of the Chief Executive. This Society then selects a suitable person to act as a guard, who is recommended for appointment as warden. He is then officially commissioned by the Department of Agriculture at a nominal salary, which is supplemented by additional compensation from this Association. Two of the new reservations, 'Tern Islands' and 'Shell Keys' in Louisiana, have already been reported in 'BIRD-LORE' for September-October 1907, and the four additional ones are now recorded. One is located on the Oregon coast and is known as 'Three Arch Rocks Reservation,' the order for which was signed October 14, 1907. A detailed report of the bird inhabitants of this reservation may be found in BIRD-LORE, Vol. VII, 1905, pp. 103-106.

Mr. W. Leon Dawson, the President of the Washington State Audubon Society, who is a careful as well as enthusiastic bird student, spent the summers of 1906 and 1907 in a survey of the bird life on the islands and rocky islets off the coast of Washington. These all lie close to the mainland, and are of no agricultural or commercial value. They are, however, the homes of thousands and thousands of sea-birds and a few small groups of sea-lions. On one island alone Dr. Dawson estimated there were 40,000 Kaeding Petrels. This report was the basis for three new bird and animal refuges, to be known as 'Copalis Rock Reservation,' 'Quillayute Needles Reservation,' 'Flattery Rocks Reservation,' the orders for which were signed October 23, 1907.

The plan of bird and animal refuges is destined to be a great factor in the future in the preservation of the wild life of the country. However good the laws are and however well they may be enforced, killing will go on, and there should therefore be refuges established in all parts of the country where shooting is absolutely prohibited. It is astonishing how soon birds and animals learn to know where they are undisturbed, and how little fear of man they display within such bounds. The reservations we are securing are the beginning of the plan of refuges, but the Federal Government owns no land in any of the thirteen original states, nor does it own any in Texas. In these fourteen states, the proposed system of refuges can be secured only by purchase, or by a legislative act.

It is very much to the credit of the authorities in Pennsylvania that the game-refuge plan has been adopted. The authorities of New York should adopt the plan at once, and establish a large number of bird and game refuges in the Adirondack and Catskill Parks. The setting aside of land for a refuge does not

necessarily mean that it cannot be occupied by man, it simply means that when a bird or animal reaches these sacred precincts its life is safe.

The refuge plan must necessarily in the future be largely by purchase or lease or donation from individuals or societies. The Louisiana Audubon Society has been very active in this work, and now owns or leases a large number of islands.

During the past year, the North Carolina Audubon Society has acquired some sandy islands on the coast, which are noted bird resorts. On one of them is located the largest colony of Least Terns that exists in the United States. The La Rue Holmes Nature Lovers' League has raised a considerable sum of money for the purpose of buying a large tract of suitable marsh land in New Jersey, which is to be dedicated as a bird refuge. The state of Massachusetts has, during the present year, acquired a tract of 2,000 acres on Martha's Vineyard for a refuge, especially for the purpose of preventing the total extinction of the Heath Hen. Individuals are adopting the idea, and are making their estates bird and animal refuges; this is specially the case in California and in Indiana.

Thousands of memorial dollars are contributed annually to educational or philanthropic institutions. We suggest that a beautiful and appropriate memorial would be an island or tract of land dedicated in perpetuity as a bird refuge in charge of this Association. It would be a lasting and fitting monument.

Warden Work.—The importance of this branch of effort of the National Association is hardly realized by the public. Had it not been for the faithful guardians who have cared for the colonies of sea-birds on the coasts and inland waters of the country, many of the species of birds that we now have strong colonies of would have been exterminated. This is easily proven; take for instance the Terns and Gulls. A habit implanted in all species of birds centuries since impels them annually to journey to an ancestral breeding home for the purpose of reproducing their kind. If they are undisturbed, enough young are raised to offset the decrease, caused by old age, epidemics, cold storms, high tides, lack of food and predatory birds and mammals, and a species is maintained at a high degree of strength and efficiency. If, on the contrary, the birds are prevented from breeding for one season alone, the species is weakened, and, if this is continued, it will, necessarily, finally become exterminated, because not enough new birds are produced to keep up the stock. Our warden system is for the purpose of allowing the birds to breed undisturbed, and the loyalty and efficiency of the men in our employ is the reason why our coasts and inland waters are slowly but surely being repopulated with sea-birds, some species of which were dangerously near the point of disappearance. Even with all the care exercised in the past few years to prevent such a misfortune, there is grave doubt whether it will be possible to restore at least two species that were formerly common, viz., the Least and Gull-billed Terns.

During the breeding season of 1907, all of the colonies cared for did well, and some of them had a specially favorable season. Each warden is required

to make preliminary reports of the conditions at his station during the season, and a final report or summary at the close of the breeding period, or when the young birds are all awing. Very often we are fortunate enough to have some member of the Association, who is a trained ornithologist, make a tour of inspection. This year the coast of Maine and a part of the Virginia coast were visited, and the reports are appended. In addition, Professor Watson of Chicago, a biologist, took charge of the bird colonies at the Dry Tortugas, Florida, and his very interesting report is given in full.

There were the usual number of excessive tides, when thousands of eggs or young birds were swept away; but such natural tragedies are to be expected. If we can prevent interference by man, the balance established by nature will be maintained. From every station, the wardens report that the birds are becoming more tame and fearless of man, and this statement is often verified by letters to the Association from members or persons who have noticed the change. Further, when the birds are permitted to breed undisturbed, the first clutch of eggs is hatched, and the young birds mature early in the season, and are much stronger and more able to care for themselves when the migration period is reached than birds that are hatched late in the season. To detail the reports of each warden would take far more space than can be allowed, but from them it is safe to say that during the past season many, many thousands of sea-birds were raised.



UNCLE MARK YOUNG, FAITHFUL WARDEN, NO-MAN'S-LAND ISLAND, MAINE
Largest colony of Herring Gulls in the United States. They are known as Uncle Mark's pets

Educational Work.—This branch of the work of the Association has been very largely extended during the past twelve months, and is daily becoming a more important factor in the advancement of the cause of bird protection. Since our last report, the Association has issued six new Educational Leaflets, viz., 'The Killdeer,' 'The Bluebird,' 'The Red-winged Blackbird,' 'The Baltimore Oriole,' 'The Indigo Bunting,' 'The Purple Finch,' and, in addition, the following special leaflets: 'In February,' 'In April,' 'In June,' 'The Wood Duck,' 'August and the Flocking Time,' 'October and Preparations for Winter.'

In the past year, we have printed 608,050 leaflets of the various issues, which have been circulated in all parts of the country. This means that 2,320,450 pages of accurate information regarding the life-histories and food-habits of birds and their economic relations to mankind have been spread broadcast among the people, especially the school children. In addition, we have circulated 15,440 reports, 266,047 colored plates of birds, and 244,000 outlines of birds for children to color.

The good results of this distribution cannot be for a moment doubted. We see them on every hand in an increased interest in the live bird and the willingness of the public press to advocate bird protection. The following quotation from a recent letter from Professor Minear of Texas very clearly shows the appreciation of an educator in the bird literature we supply: "In connection with the garden work of the public schools of this city, I am endeavoring to protect the birds of this section. I believe I can save many hundreds, if not thousands, by the use of the leaflets which are being sent out by the Audubon Society. I have about 300 leaflets on the Robin, Meadowlark, Nighthawk or 'Bull-bat,' and Mourning Dove, which are being distributed, and I find the boys are astonished as to the good birds do the farmers. I wish to continue this good work, and would appreciate any number of leaflets you could spare me. I have eleven hundred boys in the garden and would like to reach them all if possible. This work means much to the farming interest of our state."

Our own short experience proves conclusively that children never fail to respond to our teaching about birds, and therefore it is our duty to expand as rapidly as possible this branch of our work. This is not a new idea, for Coleridge says:

"That strain again!

"Full fain it would delay me! My dear babe,

"Who, capable of no articulate sound,

"Mars all things with his imitative lisp,

"How he would place his hand beside his ear,

"His little hand, the small fore-finger up,

"And bid us listen! And I deem it wise

"To make him nature's playmate—

" — — — — — And, if that Heaven

"Should give me life, his childhood shall grow up

"Familiar with these songs."

Among the many beautiful thoughts left us by Bishop Brooks, there is one which is so pertinent in this connection that it is quoted for encouragement: "It means something that, in the disorder of thought and feeling, so many men are fleeing to the study of ordinary nature. And it is rest and comfort. Whatever men are feeling, the seasons come and go. Whatever men are doubting, the rock is firm under their feet, and the steadfast stars pass in their certain courses overhead. Men who dare count on nothing else may still count on the tree's blossoming and the grape's coloring. It is good for a man perplexed and lost among many thoughts to come into closer intercourse with Nature, and to learn her ways and to catch her spirit. It is no fancy to believe that if the children of this generation are taught a great deal more than we used to be taught of nature, and the ways of God in nature, they will be provided with the material for far healthier, happier, and less perplexed and anxious lives than most of us are living."

State Societies.—The reports of the thirty-three State Societies presented beyond speak for themselves, and, in this connection, your President cannot too strongly emphasize the importance of the work of these organizations which, familiar with local conditions, can act as circumstances require far more sympathetically and effectively than could a foreign body.

Women's Clubs.—There are few countries where nature has been more prolific and generous with beautiful birds and interesting animals than in the United States. It is a sad fact that the citizens of the country have not all realized their blessings in this respect, and have wasted what nature has so generously provided. Many of the wild birds of the country have been ruthlessly slaughtered to ornament the head-gear of women. Many organizations of women in the country are taking an active stand against the cruel practice of killing birds for millinery ornaments, and I believe that it is the patriotic duty of every woman in the land to join in the great civic movement to preserve the wild life of the country. Surely the love of country embraces within its meaning a love for its natural beauties.

The following resolution is being circulated by the General Federation of Women's Clubs, and is exerting a powerful influence in the right direction. This Association recommends its adoption by every woman, whether she is a member of a club or is simply an individual:

WHEREAS: The beautiful white Herons are rapidly diminishing, with a likelihood of their becoming extinct, and

WHEREAS: The demand for aigrettes for millinery purposes is responsible for the slaughter of these feathered innocents and the consequent death of the nestlings, therefore

Resolved: That I pledge myself not to wear any such Badge of Cruelty as the aigrette, or the plumage of any wild bird, and that I will use all possible influence to restrain others from doing so.

Big Game.—This Association lately took its first step in big game preservation by bearing a part of the expenses in the trial of two poachers for the

illegal killing of Elk. The defendants were convicted and sentenced to imprisonment for three months and to pay costs amounting to \$933. When they have served their terms, they will have been in jail fourteen months, besides having all the elk hides, horns and teeth in their possession confiscated. This case will have a very far-reaching effect, especially in the Jackson's Hole region in Wyoming, and, in fact, in the entire Northwest. Our Vice-president, Dr. Palmer, is now perfecting plans for extending our work of big game protection.

Before closing this imperfect report of the activities of the year, it is my duty as well as my pleasure to bear witness to the willing and loyal service rendered by the officers and active workers in the state organizations. So long as such a spirit is dominant, there can be no fear that the cause of wild birds and animal protection will not go steadily forward.—WILLIAM DUTCHER, *President*.

REPORT OF T. GILBERT PEARSON, SECRETARY

General Remarks.—The past year has been a busy one in the southern office of the National Association of Audubon Societies located in Greensboro, N. C. The correspondence in all parts of the southern states has greatly increased and a large amount of literature, copies of game laws, and cloth warning notices have been distributed. In addition to this, the secretary has done an unusually large amount of field work. Early in June, a vessel was fitted out at Morehead City, N. C., for an exploring expedition southward along the coast as far as Florida. The object of the cruise was to locate the breeding colonies of sea-birds in this territory and secure wardens to guard them. The most interesting discovery was that of a colony containing about five hundred birds of that rare species, the Least Tern. This was located on the South Carolina coast about ten miles from Cape Romain. More than two thousand Brown Pelicans were also found on this coast. The vessel was out about thirty-one days.

Legislative work has claimed the secretary's attention in North Carolina, South Carolina and Georgia, and he appeared before legislative committees in these three states.

Much time has been spent in travel and work in South Carolina, to assist in getting that state's Audubon Society on its feet. It is now fully organized, having been incorporated by the Legislature with all the power of a state game commission, and with good officers at its head.

A number of cities in South Carolina and Georgia have been visited in the interest of the suppression of the traffic in song-birds, and, as a result, a number of dealers have discontinued their work. Some other interesting discoveries were made, which will be published in due time.

More than two dozen public lectures have been given by the secretary during the year. He also represented the National Association at a number of gatherings, particularly the meeting of the League of American Sportsmen in Norfolk, Va.; the meeting of the International Conference of Cotton Manufacturers

and Growers, Atlanta, Ga.; and the biennial session of the National Association of State Game Wardens and Commissioners, in the Yellowstone National Park, Wyoming.

At these meetings, he introduced and secured the passage of strong resolutions endorsing the work of the United States Biological Survey, as follows:

WHEREAS: The Bureau of Biological Survey, United States Department of Agriculture, has been engaged for many years in studying the habits and distribution of wild birds and mammals for the purpose of determining their economic value to the agriculturist, and

WHEREAS: It has been discovered by the said Bureau of Biological Survey that many of our non-game and song-birds and certain of our mammals are most valuable assistants in destroying worms and other insects injurious to growing crops, fruit and forest trees, and the bulletins of this subject issued from time to time by the Bureau are a practical and valuable aid to farmers and planters, and

WHEREAS: The Bureau of Biological Survey has investigated the relations of birds to the boll-weevil in Texas and other cotton-growing states, and has issued several publications on the subject, naming the species that destroy the weevil and giving information as to their habits, with practical suggestions for increasing their numbers, and

WHEREAS: The work of game preservation by this Bureau has resulted in a more general uniformity of state laws relating to open seasons, licenses and other details, while the enforcement of the Federal statute known as the Lacy Law has resulted in a more general observance of state laws regulating the export of game-birds and animals, and

WHEREAS: All of this work is of direct and positive benefit to the cotton-grower, therefore;—

Be it Resolved: That this Association recognizes fully the value of the work of the Bureau of Biological Survey, and most respectfully petitions the national Congress at its forthcoming session to make a sufficient appropriation for the support of this Bureau to enable it to continue and broaden its work along the lines indicated; and be it further resolved:—That a copy of this resolution be furnished by our Secretary to every Senator and Representative in Congress from the cotton-growing states.

Visits with the officers of the state Audubon Societies have been made, and more or less work has been accomplished in Georgia, South Carolina, Ohio, Missouri and Colorado. A number of trips, in executing the preliminary work for legislative enactment, have been made to Virginia.

Miss Mary T. Moore has, during the year, been added to the office force as school secretary. During the summer months she lectured before twenty-four farmers' institutes, and since then has been busy with correspondence and supplying the school-teachers in North Carolina and Virginia with leaflets of the Association.

Meeting of Game Commissioners.—Your Secretary attended the fourth biennial meeting of the National Association of State Game and Fish Wardens and Commissioners which was held at Fort Yellowstone, Yellowstone National Park, August 9 and 10. The members met at Mammoth Hot Spring Hotel on August 8, and the same day called in a body to pay their respects to General S. B. Young, Superintendent of the Park, by whose invitation the Association was holding

its meeting there. The sessions of the convention were presided over by President W. F. Scott, State Game Warden of Montana; Chas. A. Voglesang, of California, acting as secretary. In the course of General Young's hearty address of welcome, many exceedingly interesting statements were made regarding the increase of game in the park. For instance, we learned that about sixty-five head of Buffalo are still preserved. About one-half of these are kept in a corral near Gardner. The remaining ones are still running in a wild state in the Pigeon Creek country, near Yellowstone Lake. The increase of these herds is not rapid, one reason being the fact that the males increase much more rapidly than the females. About 25,000 Elk are now believed to be in the Park, and the number is continually augmented by additional bands which come in from the surrounding states to escape prosecution of the hunters, many of whom desire to kill these fine game animals simply for the teeth. Antelopes are on the increase, as are also Mountain Sheep. Mule Deer are today very abundant, and may be seen almost everywhere while passing through the Park.

Following the remarks of General Young, Colonel Anderson, former acting superintendent of the Park, was introduced. His address was one of the most valuable and interesting of the entire convention. His experience in endeavoring to preserve the game and repress poachers dated from the time of his appointment in 1881, and his early struggles on behalf of the game of the park were listened to like tales of romance.

Dr. T. S. Palmer, of Washington, D. C., spoke on 'Novel Features of Recent Game Legislation,' giving, in connection with this, a most valuable summary of all the game legislation in the United States in the past year, as well as throwing out many valuable suggestions regarding needed laws in different states. The commissioners from one state after another followed, and told of the bird and game conditions in the territory over which their jurisdiction extended. It is interesting to note that many of these gentlemen gave the National Association of Audubon Societies and the officers of the state organizations very decided credit for battles which had been won in their states for bird and game protection.

The work of the Audubon Society in influencing legislation, particularly the past year in saving the non-game bird law in Oregon; helping preserve the remnant of the Game Commission in Missouri; the splendid work done in Connecticut with the establishment of the license law and other important features; the creating of the Game Commission in Alabama, and the securing of full control of the game protection work in South Carolina, were some of the matters which were discussed in detail before the convention. The Audubon Society is today an enormous factor in game legislation in America, and the coöperation of the Audubon Societies and the State Game Commissioners throughout the union is a most fortunate and valuable combination, and these two forces should work hand in hand continually with tremendous and far-reaching results for good. Among the most entertaining speakers of the convention were David E. Farr of Colorado, L. T. Carleton of Maine, Dr. Geo. W. Field and John

Delano of Massachusetts, Geo. W. Clark of Illinois, Carlos Avery of Minnesota and William N. Stephens of Idaho. An important feature of the convention was the presence and addresses of seven National Forest Rangers. E. A. Sherman, Chief Inspector of the National Forest for the district of Montana, northern Idaho and Wyoming, in a most interesting manner enlarged on the work of forest preservation and the relationship between this valuable subject and game protection.

New officers were elected for the Association as follows: President, William F. Scott, Helena, Montana; First Vice-president, T. G. Pearson, Greensboro, N. C.; Second Vice-president, L. T. Carleton, Augusta, Me.; Secretary, Chas. A. Voglesang, San Francisco, Cal.; Treasurer, Carlos Avery, St. Paul, Minn.; General Council, Joseph Acklen, Nashville, Tenn.; Directors, John W. Delano, Marion, Mass.; David E. Farr, Denver, Col.

After the adjournment of the convention, the commissioners proceeded on a five-day tour in the Yellowstone National Park, where many facilities were afforded them for seeing not only the wild life but the natural phenomena of this wonderful, world-renowned region.—T. GILBERT PEARSON, *Secretary*.

REPORTS OF SPECIAL AGENTS

REPORT OF EDWARD HOWE FORBUSH

My work with the National Association began in January with the introduction of two bills into the Massachusetts legislature. One of these was drawn to protect the larger Gulls at all times, and the other to prohibit all spring shooting of Wild Ducks. While these bills were pending, Congress refused the appropriation for the Bureau of Biological Survey of the United States Department of Agriculture, and it became necessary at once to concentrate all effort on the attempt to make more widely known the importance of the work of the Survey.

From January 15 to June 1, my time was given mainly to legislative work in Connecticut, Massachusetts and New Hampshire. This work was almost uniformly successful, as all the measures advocated were enacted, with the exception of the anti-spring shooting bill in Massachusetts. All proposed bills inimical to bird protection were defeated. The bill to protect the Gulls was enacted largely through the efforts of Dr. Geo. W. Field, chairman of the Commission on Fisheries and Game. I followed through all their stages a bill to protect Loons and Eagles, and another, introduced by the Fall River Natural History Society, to protect the more useful Owls and Hawks. A bill requiring non-residents hunting within the state to procure a \$10 license was also advocated and supported through all its stages.

The bill to authorize the Commission on Fisheries and Game to take land on the Island of Martha's Vineyard, to be used in conserving and propagating the nearly extinct Heath Hen, met with considerable opposition in the Ways

and Means Committee, and was delayed until late in the session; but the Chairman of the Fish and Game Commission, together with Mr. William Brewster, president of the Massachusetts Audubon Society, and many other friends of the bill, came handsomely to its support, and a redraft was finally passed. The commissioners have now taken, by gift or otherwise, about two thousand acres of land, and are protecting this vanishing game-bird in its last stronghold, where they intend if possible to propagate it, so that it may, in time, take the place it formerly occupied in the Atlantic coast states.

The campaign in Connecticut was long and tedious, occupying more than five months, but was finally successful in every respect. The forces which for so many years had been able to keep open a spring-shooting season for wild fowl, snipe and shore birds, were defeated and demoralized for the time being, and all shooting of these birds is now prohibited in Connecticut from January 1 to September 1. The enactment of this law was finally followed by that of another requiring the registration of all hunters. This is the greatest gain ever made by the bird protectionists in Connecticut, for it provides money in the shape of license fees to be used for the enforcement of the game and bird laws, which were formerly little respected in many parts of the state. Another law, which was strongly advocated and passed, prohibits the sale of upland game-birds for a period of years. The Connecticut legislation was upheld by the Audubon Society, by many enlightened sportsmen and intelligent farmers, and opposed mainly by market hunters and others who care nothing about the extermination of the birds provided they get their share of the birds or the money which is expended in hunting them.

My work in New Hampshire was mainly devoted to the support of a so-called omnibus bill for the protection of fish, birds and game, and bills for protecting the Wood Duck, Upland Plover and Killdeer at all times for a series of years. Mrs. Arthur E. Clarke, of Manchester, president of the New Hampshire Audubon Society, exerted a most potent influence for the passage of this legislation, and she was ably seconded by the secretary, Mrs. F. W. Batchelder. These ladies fully exemplify the power that officers of the Audubon Societies possess. Great credit is due to Chairman Nathaniel Wentworth of the Fish and Game Commission, for his work in shaping legislation. During this legislative work, I have been impressed with the fact that each member of this Association and each member of the State Societies is capable of exerting a considerable influence toward the enactment of good laws, and a large part of my work has consisted of getting acquainted with those who are interested in bird protection, and showing them how they can best use their influence.

Twenty-two lectures were given from January to June before state normal school teachers, farmers' associations and legislators in the three states. Most of these talks were illustrated by stereopticon, and recent reports show that they have led people, especially children, to feed birds, put up bird-houses and otherwise care for birds and study them. From June to October, fully

half my time has been occupied with other duties than those connected with the work of the Association. The time given to its work has been utilized largely in organizing people interested in the protection of birds in New England, and in soliciting members for the National and State Associations. In August, a series of five illustrated lectures on birds in their relation to the farmer was given at the Massachusetts Agricultural College at Amherst before students in the large and successful summer school of agriculture. This course proved one of the most popular of the year. The students were mainly teachers and others connected with school or college instruction, and the attendance at these lectures included nearly the entire school.

The bird laws enacted in Massachusetts since the first settlement of the colony have been studied, and a bulletin entitled 'Statutory Bird Protection in Massachusetts' has been prepared and printed by the Massachusetts State Board of Agriculture for free distribution among farmers and others, in anticipation of a movement for better legislation. Copies may be had by application to Secretary, J. Lewis Ellsworth, State Board of Agriculture, State House, Boston, Mass.

As the first edition of 'Useful Birds and their Protection' was practically exhausted within three weeks of its issue, a bill authorizing a second edition was introduced into the legislature and passed. The second edition is now in press, and copies may be obtained of Secretary Ellsworth when issued. I have prepared also an illustrated article on the relations of birds to agriculture for Prof. L. H. Bailey's *Cyclopedia of Agriculture*, now in press.—EDWARD HOWE FORBUSH.

REPORT OF H. H. KOPMAN

The work undertaken by your present special agent since his first connection with your Association last May has included three principal lines of activities, viz., a cruise along the Louisiana coast west of the Mississippi river, covering the period from May 15 to June 21, attendance on farmers' institutes in Mississippi, for the purpose of addressing farmers on the importance of bird protection, and covering the period from July 15, to September 6; and publicity work in Mississippi, with Jackson as a base of operations, having as its object the organization of a Mississippi State Audubon Society. As this report is being drafted, preliminary steps are under way for making an Audubon exhibit at the Mississippi State Fair, at Jackson, November 5-16.

The cruise along the Louisiana coast was made in the schooner 'Sea-bird,' of Pass Christian, Miss., owned by Captain William Sprinkle and sailed by Captain Frank Couvillier and Mate O. C. Colson, of Morgan City, La. The breeding colonies found on this trip were: Shell Keys, off Marsh island, at the entrance to Vermilion Bay, the nesting-home of about two thousand Royal Terns, and the resting-place of Brown Pelicans and Man-o'-War birds; that portion of Last island west of 'Caroline's Cut,' where about 6,000 Black Skim-

mers were found breeding; East Timbalier, the breeding-place of about 4,500 Black Skimmers, 5,500 Laughing Gulls and 1,750 Louisiana Herons, as well as about six pairs of Snowy Herons; the 'Mud Lumps' islands off North Pass, Pass à L'Outre, Northeast Pass and Southwest Pass, Mississippi river. These 'mud lumps,' together with the Shell Keys, have since been set aside as national reservations. Important feeding stations were found also at Calcasieu Pass, at Trinity Bay, Last island, at Wine island, on the Shell islands in Barataria Bay, at Barataria Light (Ft. Livingston), and at Shell island, Bastian Bay. The principal species observed were Laughing Gulls, Royal Terns, Black Skimmers and Brown Pelicans. Caspian Terns and the greatest number of Forster's Terns were seen on the mud lumps off Northeast Pass. Least Terns were seen at several points, but none were found breeding; similarly with White Pelicans. The number of brown Pelicans breeding and reared on the mud lumps off Southwest Pass was estimated at 7,500.

Your agent made talks to farmers at twenty-five points in Mississippi, in the counties of Lincoln, Copiah, Amite, Pike, Newton, Scott, Leake, Neshoba, Kemper, Yalobusha, Grenada and Tallahatchie. The number of farmers reached in this way was probably about five hundred. In addition, a talk was made before about two hundred farmers at the 'Round-Up' Institute at Agricultural College (Starkville), September 4-6. The subject of this, as well as of the other talks, was 'The Necessity of Feathered Help in Agriculture.' Actual specimens were shown in all cases, and much interest was manifested at the 'Round-Up' and at a number of other institutes.

About one thousand copies of the poster, 'Save the Birds,' have been sent out to Mississippi post-offices; and this work will be continued until all the post-offices in the state are supplied, and the circulation will probably be extended to railway stations, hotels, etc. Two hundred copies of a circular letter calling on the people to help in the organization of a Mississippi Audubon Society have been sent to Mississippi newspapers, while some of the circulars have been posted.

Your agent wishes to express his appreciation of courtesies extended him by state officials in Mississippi, and especially by Prof. E. R. Lloyd, Director of Farmers' Institutes, and Hon. H. E. Blakeslee, Commissioner of Agriculture. The latter has kindly invited your agent to make his headquarters in the Commissioner's office, and, in consequence, our literature is on file at this office, while your agent spends a considerable part of his time there. Our literature is also to be had from the Secretary of State, and the Superintendent of Education.—H. H. KOPMAN.

REPORT OF WILLIAM L. FINLEY

During the past few years, there has been considerable change in economic conditions in Oregon and Washington. Great stretches of land have been cleared and settled, and fruit-raising has grown to be the leading industry. Native trees and bushes have given place to grain-fields and orchards. The birds that

formerly lived on wild fruits and berries have taken to a civilized diet, and this has naturally caused complaint from farmers and horticulturists. Birds that were unknown to the ordinary fruit-raiser, such as the Varied Thrush and Lewis Woodpecker, have suddenly been discovered, and have aroused complaint,—the former because it eats grapes, and the latter is known as the 'Apple Bird,' because it frequents apple orchards.

The complaint has come from certain quarters that birds are doing more harm than benefit, and, at the last session of the Oregon Legislature, a bill was introduced which permitted farmers, orchardists and gardeners to kill any bird they thought harmful. Such a sentiment was aroused against the birds by a few fruit-growers that the bill passed both Houses, and would have become a law had the members of the Audubon Society not made a strong appeal to the Governor, who vetoed the bill.

In order to forestall evil bird-legislation, we have begun a systematic work of education throughout this part of the country. A series of Bird Leaflets are being prepared, and will be published under the authority of the University of Oregon. These are to be used at teachers' institutes, and, in connection with the Leaflets of the National Association, will spread the interest among the school children. During the past year, a series of lectures have been delivered in eight different towns and cities throughout the state, in order to arouse greater interest in the study of bird life. These lectures are also to be given before the various granges and other societies. Considerable publicity work has been done by articles in newspapers and magazines, such as 'School and Home,' and 'The State Grange Bulletin.'

The past year has marked the beginning of systematic work in bird protection in the state of Washington. Several bird lectures have been given, and on April 20, at the conclusion of a lecture in the assembly hall of the Seattle High School, the Washington Audubon Society was organized. This has since grown to be a thriving organization, and will undoubtedly have a wide influence in protecting the birds of the state. Your agent has also given public illustrated lectures on the subject of bird study and bird protection in Illinois, Michigan, Minnesota and Indiana.—WILLIAM L. FINLEY.

REPORT OF JOHN B. WATSON ON THE CONDITION OF THE NODDY AND SOOTY TERN COLONY ON BIRD KEY, TORTUGAS, FLORIDA

During May, June and July of the present year (1907), which are the important months in the nesting season of the above-mentioned Terns, I acted as warden of Bird Key. While serving in this capacity for the National Association, I was at the same time engaged in a scientific study of the habits of these birds for the Marine Biological Laboratory of the Carnegie Institution. The scientific report of this work will naturally first appear in the archives of the Carnegie Institution. I wish, in the present connection, to extend my thanks

to President Dutcher and to the Audubon Society, for kind permission to carry on scientific studies on a protected bird colony, and for the complete control of the colony during the period of study.

The writer has nothing but favorable statements to make upon the condition of the colony. A few years ago, Dr. Thompson (*BIRD-LORE*, Vol. V, 1903, pp. 77-86), made a detailed report upon the condition of this colony. Apparently, since that report was made, the birds have increased largely in



OLD HOSPITAL BUILDING, BIRD KEY, DRY TORTUGAS, FLORIDA
Used by wardens as a residence

numbers. By methods which are described below, some notion of the number of birds nesting upon the island was obtained.

Approximate Number of Sooty Terns.—As was shown by Dr. Thompson, some of the Sooties lay their eggs in holes in the sand, either under the bay cedar bushes, or out in the open spaces, while others lay directly upon the sand, or upon the matted grass. Apparently, the Sooties come to the island in groups. This is evidenced by the fact that laying begins at slightly different dates upon different portions of the island, Roughly speaking, the southwestern portion of the island was first 'taken,' for the eggs first appeared in that section; then, in order, the central and northeastern portions. The natural subdivisions of the surface of the island, the sandy places, wooded portions, etc., made it pos-

sible to subdivide these large nesting-places into given areas, for the purpose of enumerating the eggs.

The three large areas were accordingly subdivided into ten smaller areas. The number of square feet in each was next determined. Likewise, in each of the ten areas, several smaller areas containing ten square feet were marked off at random, and the number of eggs in each of these was actually counted. These separate counts were then averaged, thus giving a fairly representative



NODDY TERN ON NEST, DRY TORTUGAS, FLORIDA

figure for the number of eggs per square foot. Knowing the number of square feet in the area as a whole, the estimate of the total number of eggs contained in it could easily be made. When this same procedure had been followed with respect to each of the ten areas, the total number of eggs was found to be 9,429. Since the birds usually lay but one egg and there are two adults attached to each nest, the total number of Sooties reaches 18,852. This, certainly, is not an excessive valuation. The group photographs (reproduced by permission of the Carnegie Institution) taken upon one of the areas most numerous supplied with eggs, give a fairly correct notion of how thickly the birds are packed together.



SOOTY TERNS ON BUSHES, SUNNING THEMSELVES—THEY NEST ON THE GROUND

Approximate Number of Noddy Terns.—Since the Noddies build their nests of twigs, moss and sea-shells in accessible places, it is easily possible, with the help of a mechanical counting device, actually to count the number of nests. In some places, where the bay cedar is exceedingly dense, and the area has to be gone over dog fashion (or at times even more primitively), and in others, where the cactus growth is very dense, error in counting is possible. Six hundred and three nests were actually counted. Probably 700 nests (inhabited) would be a safer estimate. Doubling this count to get the number of birds as before, we have approximately 1,400 Noddies on the island. For reasons which I will admit are not scientifically based, I feel that the above figure does not give a sufficient number of Noddies. In the first place, from the general impression one gets, one feels that there is a vastly greater number present. In the second place, there are always hundreds of Noddies 'sunning,' either on the beach or in the trees. Now my studies show that, during the brooding season at least, the Noddy has no leisure. Consequently, I feel sure that there are many cases where the birds live on the island without nesting. I venture the suggestion, merely as a suggestion, that the Noddy does not breed until at least two years of age.

A Running Account of 'Nesting Events.'—The birds landed upon the island (April 27) five days before I reached it. On May 2, the beginning of my three months' continuous residence there, the birds (both species) were present in large numbers. As Dr. Thompson suggests, mating, apparently, had already taken place before the arrival of the birds upon the island. The Noddies were busily engaged, some in rehabilitating old nests, others in constructing new ones. (The Noddy is never satisfied with its nest, no matter how large it is. A suitable twig, piece of shell, or bunch of moss, is an irresistible stimulus, which sets free the collecting movements, regardless of the stage of advancement of the nesting period.)

The Sooties, at this time, were choosing and 'holding' appropriate nesting-sites. This was done only by dint of persistent fighting. The building of the



NODDY TERN PORTRAITS

Sooty nest is an affair consuming very little time, even when an 'elaborate' nest is constructed,—a little 'back shoveling' with the webbed foot, a little 'breasting':—a term I have chosen to designate the operation of sitting flat in the nest and turning round and round and using the breast as a 'shaper'—and the deed is done.

On May 5, two Noddy eggs were found. On May 7, several Sooty eggs were laid. From this time on, the eggs were rapidly laid by both species. Three weeks from these dates, most of the eggs had been laid. On June 3, the first



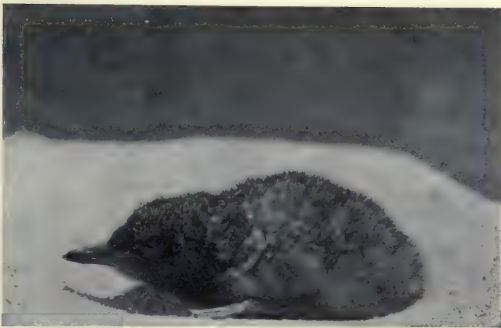
SOOTY TERNS NEST ON THE GROUND, NODDY TERNS NEST IN THE TREES,
DRY TORTUGAS, FLORIDA

Sooty young was found. Marked eggs showed the incubation period to be slightly variable but averaging about twenty-nine days. On June 9, the first of the Noddy young appeared. Marked eggs showed the incubation to be very variable, from thirty-three to thirty-eight days..

In most cases, only one egg was laid. This is strictly true for the Noddy. I have never seen two eggs in a Noddy nest except in cases where the first egg had been displaced, and hence no longer gave the proper contact sensations. I counted in the neighborhood of fifty Sooty nests where two eggs were present. In one case, I actually saw the parent bird with two young, and, in another case, one young bird and one unhatched egg. Since no unhatched eggs were

found later, I am inclined to believe that, in these exceptional cases where two eggs are laid, both are hatched and the young reared.

The weather during the past nesting season was calm. Only one storm occurred, which did little damage. The island is so small and so little above sea-level that the birds are always in danger from this source. It is well that they have favorable years, when thousands are born and reared without mishap, as was the case during the past year. In addition to adverse climatic conditions, the young of these birds are subject to the following vicissitudes: (1) The adult Sooties kill the young belonging to adjacent Sooty nests. This occurs, however, only when the colony is disturbed and the young seek cover. The old



SOOTY TERN EIGHT DAYS OLD



SOOTY TERN TWENTY-FIVE DAYS OLD, DRY TORTUGAS, FLORIDA



NODDY TERN EIGHTEEN DAYS OLD



NODDY TERN THIRTY DAYS OLD, DRY TORTUGAS, FLORIDA

birds return to the nest first. When the very young birds shortly begin to return to their respective nests (as they always do after every interruption until they are ready to fly), they have to run the gauntlet of the sharp beaks between them and their goal. The young which are thus slain are, approximately, from one to five days of age. After they attain the fifth day, they are quick to avoid the neighboring nests. (2) On account of the carelessly constructed nest, the Noddy young often falls to the ground and perishes. Just what percentage of the young of the two species are lost in these ways is not known.

Relation of Frigate Bird to Tern.—After the young Terns appeared, possibly five hundred Frigate Birds were present on the island. Even during the laying season of the Terns, one hundred to one hundred and fifty Frigate Birds are always present. In order to verify the statements of Dr. Thompson and others to the effect that the Frigate Bird chases the fish-laden Tern until it disgorges, a tower was constructed which gave an adequate view of the island as a whole. The above statement of Dr. Thompson could not be verified, nor could a further statement which is sometimes made, to the effect that the Frigate Bird eats the young Terns. On the other hand, hundreds of times I have seen the Noddy (rarely the Sooty) chase the Frigate Bird when the latter attempted to alight (roost) in the vicinity of the Noddy nest. In justice to the above writers, it must be said, however, that the number of Frigate Birds rapidly increases as soon as the young Terns appear, and that all during the day they continually rest on the low bushes which are nearest the open nesting-places of the Sooties.

A Few Words About the Least Tern (Sterna antillarum).—The Least Tern, so far as the Tortugas group of islands is concerned, is nearing extinction. Early in the season, it was thought that a moderate-sized colony was going to thrive on Loggerhead Key. When this colony was first visited, in the neighborhood of fifty nests were found, a large percentage of which contained two eggs. About two weeks later, the colony was again visited. Only one nest containing eggs remained. A visiting dog (from the lighthouse) and a large colony of wild rats which infest this island probably destroyed the eggs. One Least Tern was



ONLY LEAST TERN FOUND ON LOGGER-
HEAD KEY, FLORIDA

Rats and dogs destroy the eggs. This species of Tern
has been nearly exterminated by plume hunters

hatched in the above nest. The photograph of this bird is given below. (This photograph was taken by Mr. Keller of the Marine Biological Laboratory Staff.) Still another attempt was made by these birds to colonize Sand Key, but there their nests were systematically robbed. Sand Key is about two miles distant from Bird Key. It is very small, and is so constantly washed over by waves at flood-tide that it is extremely improbable that it can ever form a suitable nesting-place for these Terns.

Dr. Mayer who is extremely interested in the bird life at Tortugas has promised to afford the Least Tern adequate protection if it again attempts to colonize Loggerhead Key. Colonization of Loggerhead Key will give them their only chance to survive. There is no room for them on Bird Key, and the other Keys can probably never be adequately protected.—JOHN B. WATSON.

**REPORT OF A. C. BENT, ON CONDITION OF BIRD COLONIES ON
COBB'S ISLAND, VIRGINIA, IN 1907**

We landed on Cobb's Island Sunday afternoon, June 23, and left the following Sunday, June 30, at noon. We made our headquarters at the Cobb's Island Club House with Mr. George Isdell, who was then in charge of it; we consulted Captain Andrews frequently, at the life-saving station, but could not stay with him, as he had no room for us. We explored Cobb's Island quite thoroughly, and several of the surrounding islands and marshes, as they are called, including Wreck, Moon and Pig Islands, Big Eastward, Little Eastward, Rapesan and Presses 'marshes.'

Pig Island is a large, low and sandy island, practically devoid of vegetation,—really nothing more than a large sand-bar raised sufficiently to be above the reach of the highest tides. Cobb's, Wreck and Moon Islands consist mainly of extensive salt-marshes, partially flooded at high tide, protected on the ocean sides by high sandy or stony beaches, frequently covered with great piles of oyster-shells, washed up from the sea. The so-called 'marshes' are inside islands consisting mainly of salt-marshes, flooded at high tide, but generally containing some dry lands.

We did not visit Smith's Island, for lack of time and because we heard that birds were not as plentiful there as on the islands we explored.

Laughing Gulls were abundant everywhere, perhaps nearly as abundant as they have ever been within recent years. We found two or three large breeding colonies on Cobb's Island, and many smaller colonies or scattering pairs nesting on the salt-marshes, where their nests were conspicuous in the short marsh grass. The largest colony of all was on Big Eastward, and there were other large breeding colonies on Little Eastward, Rapesan and Wreck Islands.

The birds do not seem to be molested, but, as eggging is allowed up to July 4, the eggs are persistently and thoroughly collected almost daily by the oystermen until that date, after which they are allowed to raise their birds. Out of

hundreds of nests examined, we were able to find only two complete sets of three eggs. It was surprising to see the thoroughness with which the nests were robbed. Oystermen and fishermen are very numerous here, and, as they are busy on their fishing-grounds at this season they live in small shanties on the marshes and derive an important part of their food supply from the eggs of the sea-birds, principally the Gulls. As the birds do not seem to be materially reduced in numbers by their depredations, laying their eggs persistently like domestic fowls, perhaps it would be hardly fair to deprive the men of this convenient source of supply where provisions are so hard to obtain; but it does seem as if the eggging season might be shortened somewhat. The wardens, of course, are powerless to stop eggging until laws can be passed prohibiting it.

Gull-billed Terns are rapidly disappearing from this region, where only a few years ago they were common. Only two pairs were seen on Cobb's Island. I saw a few Terns, not over two or three pairs, at Pig Island, which I thought were this species. At Wreck Island we found a few Gull-billed Terns,—perhaps eight or ten pairs,—breeding in the Black Skimmer colony. We found, in all, only four nests, one on Cobb's Island and three on Wreck Island.

A few Common Terns were seen almost everywhere, and a number of their nests were found, but no large breeding colonies were noted.

Forster's Terns were occasionally seen at various points, and a few frequented a marsh on Cobb's Island almost constantly, but no nests were found there. On June 28, we discovered a large breeding colony on Wreck Island. Probably over one hundred pairs, and possibly nearly two hundred pairs, were breeding on a salt-marsh, where their nests were thickly congregated on windrows of driftwood along the edge of a creek. The birds can be easily recognized by their notes, and their nests are characteristic, being very neat, well-built structures on large piles of driftweed. These and the other Terns' eggs are apparently not regularly taken by the fishermen, perhaps because they are too small, for we found full sets of eggs in all stages of incubation and some young birds.

The Royal and Least Terns have now become practically extinct in this region; we saw none of either species, but were told that a few Royal Terns are seen occasionally. The Least Terns have been thoroughly annihilated for millinery purposes. Our guides told us most appalling stories of the immense numbers of these birds that were slaughtered here within the past few years; the figures were almost incredible; he and nearly all of the gunners and fishermen on the coast took a hand in the game, and they kept at it until the last one was gone, though at first the supply seemed inexhaustible. Probably this species will never be reestablished on this coast, but I am happy to say that protection has come in time to save the Forster's and Common Terns.

I understand that shooting for the millinery trade has been entirely and effectually stopped, as it is known to be illegal and the wardens are seeing that the laws are enforced.

Clapper Rails are still abundant on the meadows, where they are almost constantly heard, though less often seen. We found a great many nests, but saw practically no young birds.

The eggs we found were probably second sets, but we were unable to decide whether the earlier sets had been destroyed by high tides or whether they had hatched and the young were keeping out of sight. The eggs are taken to some extent by the fishermen, but not so regularly as the Gulls' eggs, which are larger and more easily collected.

There were two very large colonies of Black Skimmers nesting on Pig Island, a small colony on Cobb's Island and a large colony on Wreck Island. They were only just beginning to lay, and hardly any of the sets were complete before we left. I doubt if many of the eggs are taken by the fishermen, though they are considered good eating; they do not begin laying much before the eggging season closes. The birds are not shot or disturbed in any way, and I do not see why they should not hold their own for many years to come.

Of the Willets, there were not over three pairs, and I am inclined to think that there were only two pairs, as we never saw more than four birds at one time. They frequented the north end of Cobb's Island and had apparently finished breeding. About three or four pairs of Wilson's Plovers also frequented the same locality and had evidently been breeding here; they acted as if they had young in the vicinity, but we could not find them. Both of these species are, in my opinion, doomed to speedy extermination in this locality, as they are far from wary and will sooner or later be killed by some of the numerous shore-bird hunters, who come here to shoot the migrant birds in the spring as well as in the fall.

Less than half a dozen pairs of American Oyster-catchers were seen,—one pair on Pig Island, two or three pairs on Cobb's Island, and one pair on Wreck Island. The latter pair evidently had young, but the others were apparently through breeding.

These birds are exceedingly wary and better able to survive; moreover they are not considered good eating and therefore are not sought for by the gunner, but it hardly seems likely that they can last many years more.

To sum up my conclusions—I should say that the Royal and Least Terns are hopelessly gone; the Gull-billed Tern, Willet, Wilson's Plover and American Oyster-catcher are doomed, and nothing can be done to save them; but the Laughing Gull, Forster's and Common Terns, Black Skimmers and Clapper Rails are now being adequately protected, and should survive.

The wardens seem to be doing their work effectively and the laws are respected. But the eggging season might be shortened and spring shooting ought to be stopped entirely. The only possible way to save the three shore birds which now breed on Cobb's Island would be to make it a reservation and stop all shooting there at all times. As the eastern Willet is rapidly approaching extermination, it would seem worth while to protect it.—A. C. BENT.

**REPORT OF ARTHUR H. NORTON ON COLONIES OF BIRDS IN MAINE
RECEIVING SPECIAL PROTECTION IN 1907**

The birds receiving special protection in Maine by wardens employed by the National Association are Puffin, Black Guillemot, Leach's Petrel, Double-crested Cormorant, Common and Arctic Terns, Herring, Great Black-backed and Laughing Gulls, American Eider Duck, Spotted Sandpiper, Great Blue, Black-crowned Night Herons and Fish Hawk,—a total of fourteen species. With the exception of the Cormorant and Black-backed Gull, all breed in greater or less numbers. By the timely effort of the Association, three species, the Puffin, Laughing Gull and Eider Duck are being rescued from the very verge of extirpation in Maine.

The colonies were last inspected during the period from July 12, to August 16, 1904, and the results given in summary in *BIRD-LORE* (January-February, 1905, VII, pp. 90-93).

The present inspection covers the period from July 24, to August 7, a much shorter period. On August 9, a trip was made to Bluff Island in Saco Bay, and August 16, one was made to Muscongus Bay, completing the work. The ground covered extends from Eastport to Saco Bay, Maine, approximately two hundred miles in an air-line. The number of islands and ledges on which I found colonies of birds breeding this year is twenty-eight. This includes all of the important ones now known on the coast. The significance of these facts will be considered in treating of the Herring Gull. In order to reach all of the various islands in the limited time at my command, it was necessary at each center to employ a competent boatman with a motor craft; this brought me in direct contact with lobster fishers, sailing-masters, scallop dredgers and general shore-fishermen.

It may be here remarked that the invention of the motor-boat marks the beginning of a new period in the history of the shore fisheries of all classes, an industry which has had a potent influence on the history of our sea-birds. It seems to me that this new period is one for the better, and it is to be believed that the darkest days have been passed.

It is also a fact that the birds used as food are now much less numerous than they were a dozen years ago, and the generation of gunners among the fishermen are becoming superannuated. In those days it was usual for many to carry a gun in their boats, but the practice seems to have ceased, and all are aware that there 'is a fine' on the game birds.

PUFFIN.—I saw no Puffins this year, though, on landing on Matinicus Rock, I hastened to their resort. This was during the middle of a clear day when the birds were away fishing, even the Black Guillemots, which are so numerous here, being absent from the vicinity. I was told by Captain Hall's young son that he had seen five Puffins at one time this summer, and other observers assured me that they had seen one or more. The Puffin is one of the most picturesque features of our bird-life and its preservation is much to be desired.

BLACK GUILLEMOT OR SEA PIGEON.—These most attractive birds are still

common on the coast of Maine. They are very local in their choice of haunts, and, though they are undoubtedly holding their own, do not seem to be increasing. Their habitat in Maine still embraces most of the outer islands from the western entrance of Machias Bay to the west side of Muscongus Bay. They are especially numerous about the Mt. Desert and Matinicus groups of islands.

They appeared tamer than on former visits, flying very near boats or allowing a close approach. On August 16, but one was seen on the Western Egg Rock (Muscongus Bay), where formerly about a half dozen were accustomed to breed. At all of their other stations about the usual numbers were observed. This absence so late in the season may have been due to their having left the breeding grounds.

The one seen was certainly not shy, but came to its nest with a rock eel, while we were still near the shore. She hurriedly carried the fish into the rock pile for her young, and quickly emerged and flew away. All of my observations on this species convinces me that at this season, at least, its food consists almost entirely of rock eels (*Gunnellus gunnellus*). Thus, so far as food is concerned, it is of neutral value. Yet its beauty, gracefulness and pathetic voice makes it fill a peculiar place in the scenery of barren rugged coasts. Surely, to the increasing throng who visit our shores for recreation and esthetic enjoyment, it is, in the near future, to "awaken an interest they could not excite in a savage breast."

It was a matter of much satisfaction to find that the nest shown with the incubating parent (The Auk, Vol. XXI, Pl. XVII), contained, on August 6, this year, two young ones nearly ready to leave. This nest was first observed in 1902, since which time it has been occupied on each visit.

Great Black-backed Gulls were resting in small numbers—a dozen or two birds—at No-Man's-Land, Wooden Ball and Metinic Green Islands. They are not now known to breed on the coast, but are evidently becoming regular summer residents, in increasing numbers, in the vicinity indicated, taking advantage of the security afforded their near relatives. Their breeding is to be expected under such suitable conditions.

HERRING GULL.—Eight colonies of this Gull were visited. They are located at Old Man, Brothers, Pulpit Rock, Cone Island, Little and Big Duck Islands, Heron Island and No-Man's-Land. The distance, in an air-line from Old Man, the most eastern colony, to No-Man's-Land, the most western one, is one hundred and twelve miles. The three western colonies are the largest, and contain many more than half of the Maine Gulls. Each of these colonies commands an indentation or bay of the adjacent coast, which, with its peculiar currents, large areas of flats, bars, ledges and mussel beds, furnishes the greater part of the food of the dependent colony.

It is well known, of course, that these Gulls radiate in some numbers in all directions up to thirty miles, and it has been conjectured that they range much farther.

My estimate of the number of the smaller or eastern colonies is fifteen hundred to two thousand at each, Old Man and Brothers, eight hundred at Pulpit Rock, and four thousand at Cone Island.

The area occupied as breeding stations by the birds just enumerated has its extremities thirty-two miles asunder, with a possible feeding range of sixty miles, east to west, without encroaching upon the feeding-grounds of any other colonies. The colonies of Cone Island and the Brothers show the most remarkable increase in the total number of adult birds; and it is certain that the breeding birds have increased at both places, though much more at Cone Island. The number of adult birds at Great Duck Island, one of the most securely protected colonies on the coast, seemed noticeably less than on my last visit.

It is worthy of note, in this connection, that the number of Gulls spending the summer west of Pemoquid this year is much smaller than at any corresponding season for the past four years. On all of the breeding grounds the birds are tame; nowhere did I see evidence of molestation by man.

At Old Man and Brothers the breeding season seemed much later than elsewhere, many young being just hatched, and some of the occupied nests were just hatching. At Cone Island the season seemed to correspond with the western colonies. With the exception of the Old Man, at all of the colonies considerable mortality was noticed among the young, probably due to the causes which have affected the Terns.

The Gulls are tame and unsuspicious; their young hatch at a seasonable time, and they are occupied with feeding them rather than with remating and trying all summer to breed. While we now have several very large colonies of Gulls, it should be borne in mind that, previous to 1905, many smaller ones existed. There are now considerably fewer colonies than there were previous to the movement to preserve the birds. They now lead normal lives, and it seems certain that they have reached the state of abundance where their competition with natural checks is much more severe. With the increase of birds at any colony, the supply of food must be sought at greater distances, causing greater exposure of eggs and young to the elements and to predaceous animals. Several checks are evident and operative, and the idea that the birds are about to overrun all bounds, as claimed by a small party, is plainly fallacious. Crows are notorious robbers and destroyers of eggs and young birds, including Terns, and why not of Gulls.

Terns are much more agile in the defence of their nests and young, yet with them the cunning of the Crow often prevails. Captain Stanley, of Duck Island Station, told me that the day before my visit an Eagle had visited his colony and been seen to kill two old Gulls. At the Brothers a magnificent individual of the Peregrine Falcon was seen, and evidences of several feasts on Petrel were discovered. Young Gulls must have been entirely at his mercy. Ravens are numerous enough in all the section inhabited by Gulls in this state to serve as a factor in holding them in check.

The trip from Rockland to Matinicus on the little steam packet 'W. G. Butman,' carrying in addition to her crew, passengers, freight and the United States mail, was made through a dense fog, which obscured all objects fifty or seventy-five yards away. It was a matter of especial satisfaction to me to witness the fact that, after running by the compass for a specified time, the Captain stopped the engine, and listened for the Gulls on No-Man's-Land. This welcome sound being distinctly heard, he noted carefully the direction and moved the craft cautiously onward, until 'Two-Bush' eastern head was spied, directly in his path. Another course was laid and the craft worked safely into the harbor.

It is also a fact that I have been assured of, that the pollock trawlers are guided to the schools of fish on this coast by the Gulls.

Many of the lobster and other shore fishermen now value the presence of the Gulls as above indicated, in guiding them to schools of fish, and in sailing in fogs.

The uncomplimentary things said about the birds were confined to our extreme eastern border.

Elsewhere, I witnessed an increased interest and growing admiration. An elderly gentleman at Jonesport said, "I am glad to see the Gulls in the harbor. When they come in the fall, in large numbers, right up to the wharves, it seems good to see them."

LAUGHING GULL.—The colony of Laughing Gulls located at Western Egg Rock, Muscongus Bay, was inspected on August 16 and found to be in good condition. The birds allowed a close approach before taking wing, but, after having been alarmed, hung far above us. After a short time, I made a count of thirty birds overhead, and now believe that our estimate of fifty that arose from the island was very nearly correct. Unlike my former visit, many remained flying over the island throughout the period of my presence.

Immediate attention was given to the nesting-ground with the result of finding a number of nests, all of which had hatched, and their vicinity was trampled and whitened by the excrement of the young. Roads ran from the nests in several directions into the dense mass of vegetation.

At least two young birds were seen on the wing, and, after a diligent search, another, a half-fledged one, was found. It tried to make its escape by skulking, but became entangled in the weeds and was taken in hand. It was a beautiful and spirited young creature, and some difficulty was experienced in obtaining a picture of it. It was returned to its road and the shelter of the weeds, and made haste to run and hide. A little search was made a few minutes later, but it could not be found. I was convinced that they are expert at evading observation, the freshness of the roads through the weeds was unmistakable witness of this fact. Two nests contained each an addled egg, but no other eggs were found. The colony certainly looks flourishing, and the outlook for the species the most hopeful for many years.

It must be said that this single colony is all that remains of several larger

ones once in the western half of Maine. Without protection, this species would soon have been blotted out of our state fauna. It is a species calculated to fill a place that no other bird can fill, to these generations who are to find enjoyment in the wild life of our coast, such as their forefathers could not know. A pair was seen swooping down over the Shark Rock, indicating that they have taken to breeding there again.

COMMON AND ARCTIC TERNS.—Terns are abundant and very tame on the Maine coast, from Englishman's to Saco Bay. Large numbers were still on the breeding grounds and many young ones were observed. On August 31, the first young ones were observed at sea, near the outer limits of Penobscot Bay. Several of the old resorts have been reoccupied since our last trip of inspection. These are Ship Island, Green Islands below Blue Hill Bay, and Shark Rock.

Large numbers of young Terns perished at Matinicus Rock at the time of hatching, by reason of a heavy cold rain; and wherever I observed, a considerable number of dead young were seen, of all sizes, even well-fledged. Captain James Hall, of Matinicus Rock, whose opportunities for observation are unrivaled, expressed the belief that food is scarce and starvation is the cause of much death, late in the season.

My visit to Libby Island was on July 26, when I found the large colony of that place entirely gone. Before I left the place, about twenty Terns flew in over the island and then away. Captain McKlusky said that many returned in the spring. No migratory movement was detected until August 16, certainly none being in progress on August 9. I was assured by several persons that they were abundant over the water far up Machias Bay. These probably belong to this colony. The presence of the Peregrine Falcon at the Brothers seemed to me sufficient reason to account for the abandonment of Libby Island by the Terns. One of these birds took up its abode at the Egg Rocks, in Muscongus Bay, in 1901, and the Terns abandoned the place and their eggs. There I collected pellets filled with feathers and bones of Terns and Petrels.

A new colony of Common Terns was visited at Ballast Island, Englishman's Bay. It was in good condition.

At Freeman's and Egg Rocks very large numbers were seen, both old and young, though the young had not left the shore. About a dozen had evidently bred successfully on Green Island, near the southwestern entrance to Blue Hill Bay. None were seen there on my former visit. About fifty old and young were also seen on Ship Island, also abandoned at the time of my former visit, 1904.

Throughout upper Penobscot Bay, Common Terns were abundant and tame, belonging to the ledges northwest of Eagle Island. None were seen in Jericho Bay, though a close approach was made to Saddleback Ledge and Southern Mark Island. At Matinicus Rock and Metinic Green Island the large colonies seemed undisturbed by man.

Very few (as usual) were at the Western Egg Rock, Muscongus Bay, but

the colony at the eastern Rock was as large as in the early days of my experience there. Here were several piles of a dozen or more eggs lying in exposed places, showing that the hand of man had been molesting. A colony of one hundred or less was also at the Shark Rock, none being there on my last visit.

I was told by Mr. Willis Snow that he had heard a report that a party of boys went to Marblehead Rock on the Fourth of July and gathered all of the Terns' eggs and threw them at marks, showing that the need of protection has not passed away. This is an isolated rock five miles below Rockland, where the services of a warden would be impracticable.

No Terns have bred in Casco Bay, so far as I can determine. The Bluff Island colony continues in its usual security and good condition.

LEACH'S PETREL.—This bird is known to breed in Maine only on the outer tier of islands from the Brothers, a little west of the entrance to Machias Bay, to the west side of Muscongus Bay; yet it does not breed on all of the islands of that tier.

As its habitat must always be limited and it is an easy prey for its enemies, having suffered considerably of late years, especial attention was given to its present condition.

Who has not heard of the Petrel, from childhood? Who does not know of its walking upon the waves? How could we spare Mother Carey's Chickens from our broad expanse of ocean, and the lore peculiar thereto? Within the past fourteen years its range has been reduced, and one of the largest colonies of the state has been seriously affected by permanent camping and the keeping of dogs and cats.

At the Brothers, the colony is small, and the freshly torn wings of several, with the particles of flesh still red, were seen, undoubtedly the work of the Peregrine Falcon. In one instance, a ghastly pair of these wings had been taken by a late-breeding Gull to repair its nest. The next colony west of this is at the Duck Islands, fifty-eight miles distant. Here the colonies are large and in excellent condition.

A colony of considerable size is on the Green Islands, at the southwestern extremity of the entrance to Blue Hill Bay. This is also in good condition. These islands are very small, containing but three or four acres.

At the Big Spoon Island a colony of considerable size existed with a much smaller one at Little Spoon Island. The Big Spoon colony has suffered by camping and its associated evils. At the Matinicus Islands very large colonies have always existed, the largest being located at Seal Island and Wooden Ball, with much smaller ones at Matinicus Rock and No-Man's-Land. At the Seal Island the colony is still very large, but at the eastern end many have been dug out of their burrows by dogs, and several mangled birds were seen. With the possible exception of a few Guillemots, no other sea-birds breed here now, though a large colony of Terns was annihilated for the plume trade. It is said that the birds have been more conspicuous this season at Matinicus Rock than usual. At this

place and No-Man's-Land no indications of disturbance were to be seen, and the same is true of the small colony on Metinic Green Island.

Quite large numbers still breed at both Egg Rocks in Muscongus Bay, and their burrows and peculiar odor were very conspicuous. Here they have been killed and eaten, to a considerable extent, by some predaceous animal, perhaps Crows or Ravens. A couple of these black marauders were seen at the Western Egg Rock, but too far away for identification. The Muscongus Bay colonies are likely always to remain at the mercy of natural conditions.

The Duck Island colonies and the smaller ones at Matinicus are now fully protected. By the timely exclusion of dogs and cats from the Seal Island, this important colony can also be saved. The once large colony at Wooden Ball has been sadly reduced by camping.

DOUBLE-CRESTED CORMORANT.—This species continues to remain on our coast in small numbers. The colony at Pulpit Rock was of its usual size, and birds were very tame. Landing was not made, and no nests could be seen from the boat. I caused one of my boatmen to run out to Black Rock, near Cone Island, where, according to a report, Cormorants breed. Three of the birds were nesting there, but the ledges are entirely unfit for a breeding place, being so low that it must be swept over during gales from the outside, and it is very small. The flock at No-Man's-Land numbered thirty at the time of my visit, all males in glossy plumage. A few brown birds were seen fishing about the island. No evidences of nests were found. It is to be expected that they will begin breeding at this point if the present excellent conditions continue. This place became a summer roost in 1903, when I saw but five.

AMERICAN EIDER.—There are probably today no Eiders breeding on the coast of Maine, except those at Old Man's Island near our eastern boundary. The island has been leased to the National Association by the Governor and Council of Maine, it being state property. Capt. Fred. E. Small, keeper of the Cross island Life-Saving Station, warden for the Association, has erected a large sign, informing all who approach the rugged shores that it is a reservation for wild birds. This warning has been so well respected that the Ducks have become remarkably tame. Without this effort of the Association, we should now undoubtedly have to record this species among those extirpated from the state.

The shores of the island rise nearly perpendicularly from forty to one hundred feet (estimated), nearly all around, except at the southwest or outer part, which slopes away gradually to low-water mark. Here, seventy-five yards off, several quarter-tide ledges lay, making, at low water or rough weather, a narrow, rocky and treacherous passage between them and the shore. This part of the island is exposed to the full and ceaseless action of the surf.

Here the Ducks find a congenial resort, in the rough water and about the edges. The top of the island, which is rent completely in two by means of a washed-out dike, four to six feet wide, appears like an elevated plateau, clothed to the bank with white spruce and fir, low, scrubby and dense. Many dead

trunks stand, decaying and waiting the fury of some gale to hurl them to the ground, to molder with innumerable fellows which have gone before them.

Mosses, ferns and coarse weeds, with an abundance of brambles, nearly complete the vegetation, and so rank in growth are the latter that they have made a most uninviting tangle. One's way must be forced through these, over and under the brush and logs, guided by the mooted 'sense of direction,' if a stranger.

This tangle affords an obstacle to the Gulls, which must resort to the shelves of the rocky cliffs, the sloping southwest shore, the adjacent picturesque needle rocks, or the tops of the trees, to nest. Not so the Eiders, which prefer to walk to and from their nests. To them the tangle affords a secure retreat.

Responding quickly to the conditions extended to them by protection, they have become so fearless of boats that I was taken just outside of the off-lying ledges, hardly a hundred yards from two females which sat on the shores of the island, without standing as we passed. Several others remained between the shore and the ledge, considerably nearer, without flying. It was a sight sufficient to stir the enthusiasm of any one who has known these magnificent creatures as the wildest of wild birds. It was enough to stir the pride of any, but the heartless, and it is gratifying to state that Captain Small's associates share his pride in the flock of Ducks.

I saw seven females, and, outside of the ledges, a young male, probably but a yearling. The latter, on being approached, rose and flew a short distance, then dived and skulked. I was unable to find a nest, in a second short visit here.

On August 25, in the morning, as the Portland and Eastport steamer ran up Grand Menan Channel, three old drakes flew from the Campobello shore, southwest, or toward the west side of Grand Menan. I was told by Captain Fred Berry, now a surfman of the Cross Island Station, that one or two of these Ducks have often been seen about the western end of the Western Shot, this summer.

None were seen about their former resorts at Green Islands, below Blue Hill nor at Spirit or Saddleback Ledges in Jericho Bay. At Metinic Green Island, August 6, a young drake, a yearling, was flushed from the surf line; he flew about a hundred yards and alighted

GREAT BLUE HERON.—One of these birds was seen flying from Indian River toward the rookery at Great Wass Island. On August 2, the Bradbury Island Colony in Penobscot Bay was visited and found to be in excellent condition. The nests are now large from reoccupation, and all contained young nearly full-grown. A few had left the nest and were in the trees close by. This colony covers a considerable area, but the nests are scattered. It is extremely difficult of exploration, being on a very steep hillside, in spruce timber, considerable of which has died and fallen, lying with its brush on the ground. Wild currants, raspberries and red-berried elder have penetrated the brush and flourish in pro-

fusion. Travel there is indeed laborious. The crash and rustle of my progress excited more curiosity than alarm in the birds, both young and old.

BLACK-CROWNED NIGHT HERON.—This bird seems to be increasing and forming new colonies. A nest with newly-hatched young in a low spruce was found on Old Man Island, the first seen there. It was hardly ten feet above the ground. At Heron Island the colony has become established, and the same is true of the one at No-Man's-Land. A colony of considerable extent has formed on Bradbury's Island since my visit there in 1903. At all of these places (except Old Man) the young were out of the nests, but close by them.

SPOTTED SANDPIPER.—This species is abundant on all of the islands and ledges affording suitable conditions. I am not aware that it is molested. The young were flying, though one rather young one was seen on Ballast Island, Englishman's Bay.

OSPREY OR FISH HAWK.—This bird is still common in Penobscot Bay, largely, I believe, owing to an old superstition, which has afforded them protection. Yet the early days of the granite industry reduced their numbers here materially. On Bradbury Island there are several nests on trees, now occupied, so far as I was able to observe. On several ledges between this island and North Haven Island are nests built upon the rocks, perfectly accessible to man. The young birds were about ready to leave the nests, and were now standing upon their flat tops. Some were already flapping their wings in anticipation of flight.—A. H. NORTON.

REPORTS OF STATE SOCIETIES

The reports of the State Societies for the past year in most cases show substantial progress, especially along educational lines; in fact, the greatest activity and achievements of these Societies is in interesting the children. A careful perusal and study of the work of each Society by the officers of the other Societies, will be of great advantage. Valuable suggestions are thus gained, for a method or idea that proves a success in one locality may prove such in another. The state reports will also prove interesting reading for the general public, and should be a source of inspiration to many persons with means and time at their disposal. No greater civic work can be found.—W. D.

Alabama.—For some time I have been visiting the various sections of the state, and I have been delighted to note the magic effect the new game law has had on the situation in Alabama. No law has ever been enacted that has been so universally respected.

Convictions have been obtained which have had a most salutary effect; reports received by the department showing that during the month of September, there were thirty-nine convictions under the game law. Marengo county, with seventeen convictions, leads all the rest, while Lauderdale comes second with six to its credit. The convictions, by counties, are as follows: Autauga, 1; Bibb, 3; Coffee, 1; Elmore, 3; Escambia, 2; Lauderdale, 6; Lee, 2; Madison, 2; Marengo, 17; Talladega, 1; Tallapoosa, 1. Millard Lipscomb, of Demopolis, heads the county game-warden list for having secured the most convictions for any one month during the year, while Jesse A. Dowdy, of Florence, comes next.

Game and song and insectivorous birds have increased fully 20 per cent, and reckless men and wanton boys that erstwhile slaughtered them have ceased to wage their war of extermination.

I have distributed over 100,000 copies of the game law, and have given the law wide advertisement through the papers.

There has been a large demand for hunters' licenses, and every mail brings in a letter from some probate judge asking for additional license blanks.

The game law has proven a success beyond my most halcyon expectations; all in all, I am much gratified with the result of this legislation.—JOHN H. WALLACE, JR., *Game Commissioner*.

California.—Public interest in bird protection in California has made a most decided increase during the past year. This is in evidence in several ways, and especially by the greatly increased demand for copies of the bird-law leaflet of the Audubon Society, which now comes from almost every part of the state.

The value of birds to the farmer and fruit-grower is receiving much atten-

tion; women's clubs are coöperating with the State Society in efforts to save the birds, and are declaring emphatically against the wearing of feathers other than those of the Ostrich; the press, almost without an exception, is giving splendid support to the cause. Heads of educational institutions, county and city school boards, superintendents and teachers, are alive to the importance of the movement, and are helping on the good work in every possible way. The evil of egg-collecting is greatly diminished, and a more healthy sentiment among bird students, and better respect for the law, has practically put an end to the advertising of eggs and skins for sale or exchange in periodicals published in the state.

In the interest of the game and bird protection a great many thousand acres of both wild and cultivated lands are now closed to hunters, and under the provisions of the law providing for state game-preserves, enacted at the last session of the legislature, many of these holdings, and thousands of additional acres, will be entered under state protection for a term of years. In one locality in Los Angeles county, application has been made for the entry of adjoining tracts of foot-hill land aggregating more than two thousand acres.

The Society has distributed more than 20,000 copies of circulars, leaflets, warning-signs and digests of the bird laws, while several secretaries of affiliating organizations have made large additional distribution of the Educational Leaflets of the National Association. It is probable that we shall double this distribution of printed matter during the present year. Five new Leaflets are already in preparation, including 'The Western Mockingbird,' 'The Passing of the Mourning Dove,' a Leaflet on feather-wearing, and another on the care of aviary birds.

The Society is adding to its series of slides, and will soon have about one hundred pictures, many of them made from photographs of living birds. A good lantern is already assured, and within a few weeks we shall be prepared to give increased impetus to the bird-protective movement by an illustrated talk on western birds, for which there have been many requests during the past year.

The work of the Audubon Society of California during the next twelve months will be largely along educational lines. Efforts will be made to push the work into counties that have as yet hardly been reached. The newspapers and the school teachers are our great and usually faithful missionaries. When other friends have sometimes failed us, the school teacher has always "made good."

While we have accomplished only a little of the work that lay plainly before us at the organization of the State Society less than eighteen months ago, we have good and sufficient reason to rejoice at that which has been done, as well as in the growth of interest in nature-study and bird protection, and especially in the steadily increasing number of splendid friends of the birds that this Society has brought together in an effective organization for a worthy and humane purpose.—W. SCOTT WAY, *Secretary*.

Connecticut.—Our state work, this year, has been largely in the legislature. We appointed a 'Watch-out-Committee' to keep track of the proposed alterations in the game laws, and Mr. Van Name did good work in Hartford in pushing through the Alien License Bill and the Gun License Bill. The Society gave \$10 toward the Bradley monument, and \$15 towards the support of the Bradley children. We spent over \$25 repairing and renewing books for our traveling libraries and \$50 for five new libraries of twelve books each.

We distributed about 6,000 Educational Leaflets sent us by the National Association, and some Leaflets issued by the Department of Agriculture. We have printed the new bird laws on muslin in the English, Italian and Hungarian languages, to be posted throughout the state and among the granges.

We have got an excellent, fearless game warden in our county now, and the Society was glad to give him a mileage book of 500 miles and \$20 toward his expenses, as the state does not give the wardens carfare or stationery and pays little for their time. Warden Smith has created quite a sentiment for bird protection, and aroused an interest in birds all over the county. We append a special report from him.

"Seen from a warden's viewpoint, conditions in western Connecticut are most encouraging. Public sentiment is responding to the educational work of the Audubon Society and an understanding of the economic value of our birds, and the friends of protection can no longer be judged by names on the Audubon roll. Meadowlarks have done well and have been very little disturbed, and it is very rarely that a Gull is killed, and each species is on the increase. The foreign element is still the greatest menace to song-birds, but where personal work had been done in our Italian colony, explaining the laws and penalties, not one has been known to violate the laws this season,—a strong argument for more educational work among them.

"Other places, however, have not been so fortunate, and since May first seven arrests and convictions of Italians, and two convictions of Americans, have been secured for violating the non-game laws,—one for the wanton killing of a Great Blue Heron by an American, who should have known better.

"The new license fee is meeting with general favor, and will be a boom to protection; the \$15 license fee for aliens will prevent a large number of these people from roaming the woods with a gun, and furnish a fund for better warden service."

Our Executive Committee has held several meetings in the year (omitting the three summer months) and there is much interest and enthusiasm shown in the work at these meetings.—MRS. HELEN W. GLOVER, *Secretary*.

District of Columbia.—The work of our Society is planned by the Executive Committee, consisting of the officers of the Society and fourteen other members.

One of the most unique meetings was held in the fall, when, under the able

and interesting leadership of Dr. T. S. Palmer, we visited the bird-house of the National Zoölogical Park and saw many rare birds. That the privilege of this trip was fully appreciated was shown by the large attendance.

Soon after this, we held a public meeting in the lecture hall of the Washington Public Library, whose trustees have, for several years, most courteously placed their hall at our disposal. The speaker on this occasion was Mr. Tylor, of Easton, Md., who gave us some charming glimpses of outdoor life through his camera.

Our tenth annual meeting was held in January, and at this time we met with two great losses in the resignations of Mr. Henry S. Oldys, from the chairmanship of the Executive Committee, and Mrs. J. D. Patten from the secretaryship. Both have been actively engaged in the work of the Society from its inception, and it was with deep regret that we learned that after ten years of most faithful service they felt that the pressure of other duties was too great, and that they must be relieved of active work.

Our most active work is done in the spring, and was inaugurated most auspiciously by the all-too-short lecture of our National Secretary, Mr. T. Gilbert Pearson, on 'Some Results of Bird Protection in the South,' which was most enthusiastically received.

This spring, instead of our usual Bird Class, we held four informal meetings for the identification of bird-skins, under the direction of Prof. W. W. Cooke and several members of the Executive Committee, preparatory to our field-work, which later consisted of five Saturdays given to exploring the country around Washington. For an account of the walks this spring, let me quote from Prof. Wells W. Cooke's most interesting article, published in the 'Washington Evening Star' of May 20.

"The Society has the record that for six consecutive years no one of its five outings each year has been given up on account of the weather. The five trips of 1907 were attended by 112 different persons, the larger part of whom were present at only one meeting. On each trip the members separated into three or four parties, for the better observation of the birds, each party being in charge of some one familiar with the birds of the District. The best trip of the season, from the ornithological standpoint, was that of May 11, when seventy-two species were observed.

"This year the number of species seen was exceptionally large, as compared with other years, and the season was marked by the finding of some of the rarest birds known to this region. A Cerulean Warbler, the rarest Warbler of this district, was seen at Great Falls on May 11, and among other rare birds observed may be mentioned the Summer Tanager, the Golden-winged, Hooded, Kentucky and Worm-eating Warblers, the Red Crossbill and the Black-crowned Night Heron. During the entire season, 112 people saw 113 different kinds of birds, as compared with 96 kinds seen during the five trips of 1906."

It may not be generally known that the residents of the District of Columbia are subject to 'Taxation without Representation,' so that if we want any laws

enacted we must present our cause before the District Committee of the United States Congress. A year or more ago some of us did our first 'lobbying,' coöperating with the Fish- and Game-Protective Association of the District, and were successful in having a bill passed prohibiting all hunting or shooting in the District, except for a limited time, and then only on the marshes.

Our Chief of Police, Major Sylvester (who is a member of both societies), has coöperated most efficiently with us, and during the winter his mounted police have been provided with food for the birds (toward which our Society made an appropriation), which they have carried to outlying districts, and in that way have furnished sustenance for many of the birds during the severe weather. During the last three winters a few Mockingbirds have stayed with us.

We have an adult membership of 240, and our junior members number 98. The close of each year finds our Society farther advanced, both as to membership and finances, and the outlook for the coming year is more encouraging than ever before.—MISS HELEN P. CHILDS, *Secretary*.

Florida.—The Florida Society cannot show any great gain numerically, during the past year, yet, as the interest seems extending in educational lines, it has the courage to continue in its efforts, even while realizing its failure to prevent the illegal shooting and sale of plumage birds, or to secure more progressive legislation for bird protection, thereby hoping to save the existing rookeries from devastation. The following statistics give some indication of our activity: Membership, including all grades, 950; leaflets, circulars, reports distributed, 14,730; summary of the state bird laws for posting, 130; warning-notices, 200; Audubon charts in use of schools, 75 (in Orange county, 40; Manatee county, 25; Duval county, 4; Franklin county, 2; and one each in Gadsen, Lee and Putnam counties); teachers having free membership, 160.

One Leaflet was published this year, making eighteen which have been published by the Florida Society. Two prizes were given for compositions, and four for coloring outline drawings were awarded to children between the years of six and twelve. The weekly hour for bird-study, carried on in the schools at Orange county last year, will be continued, and this year the schools of Manatee county, will follow similar methods. We would especially urge that bird-study be made a part of the course in normal schools, for one great difficulty lies in the fact that no matter how ready teachers may be to instruct the pupils, it is only in exceptional cases they have knowledge of the subject.

The Robert Hungerford Normal and Industrial School, Eastonville (colored) continued its work in bird-study. At the commencement exercises in May, two prizes were given for compositions on 'The Birds of Florida.' In November a book was given as a prize to a member of Mrs. Kirk Munroe's 'Boys' Club,' 'The Rangers.' This year a prize will be given them "for good work in protecting nests." During the winter they are to hold a 'Bird Fair.' President

W. F. Blackman, of Rollins College, writes: "I had the pleasure of speaking at the conference, in St. Augustine, to some four or five hundred teachers and others about the Audubon Society." As a result, the secretary, Mrs. Vanderpool reports "that requests for literature and instruction have come from five new counties."

The auxiliaries at Port Orange and San Mateo have greatly increased the interest in their localities. 'The Palmetto Club,' at Daytona, 'The Fortnightly,' at Palm Beach, 'The Winter Park Fortnightly,' 'The Housekeepers' Club' at Cocoanut Grove, 'The Friday Literary' at Bradentown, have sustaining or annual members, and are doing active work for bird protection. The Florida Sunshine Society sends into many houses its rays of love and kindness to birds. Mrs. Robert, of Palm Beach, made an especial feature of an afternoon fête, the reading of the National Association's report for Florida. Mrs. E. A. Graves,



GUY BRADLEY'S GRAVE

Photograph by Kirk Munroe

of Ormond, writes of the interest in the 'Village Improvement Club.' Mr. John Anderson, of Ormond, is an interested officer of the Society, while our thanks are given most sincerely to Mrs. Haden, of Orlando, and Mrs. Belknap, at Miami, for constant and efficient service. Mrs. E. K. Anderson, chairman of the Bird Protection Committee of the State Federation of Women's Clubs, reports: "There are fourteen clubs that have special committees on bird protection, and the majority of these have, during the past year, observed Bird Day with appropriate exercises. This year work among the schools will be more generally taken up."

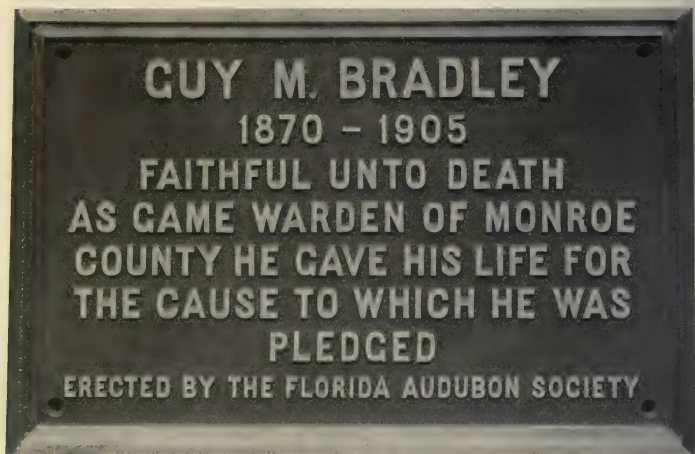
Bird Day was observed by the Orange City Village Improvement Society. The newspapers in the state have been most generous in aiding us, and we have had, as always, the coöperation of the Southern Express Company.

This year, for the second time, a bill to prevent the shooting of live Pigeons

from traps failed to pass the legislature. Letters are frequently received asking if we are powerless to prevent this "cruel and debasing" amusement, but while reading the protest, a morning paper tells us "that the event of the day was a twenty-bird handicap for Mrs. ———'s trophy." It was a close contest, "the birds being fast and the sport fine," for there was a tie between two of the braves," "with 13 kills each, out of 20 birds," and later "a beautiful dinner was served by admiring friends," in honor of one, "killing 14 birds out of 20."

No new reservations have been made in Florida since October, 1906. The reservations, or preserves, now are at Tortugas, Sand Key, Passage Key, Indian Key and Pelican Island, where the launch 'Audubon' is in use.

There have been reports from the South of the reappearance of Paroquets,



TABLET TO BE ERECTED OVER GUY BRADLEY'S GRAVE

and Nonpareils have been noted in certain localities, where for years they have not been seen; while further north an increase has been reported of White Herons Blue Herons, Cardinals, Robins and other birds.

In response to an article by Mr. Julian A. Dimock, in 'Country Life in America' for February, entitled 'Egret Murder,' the sum of \$58 was received by the treasurer of the Florida Audubon Society, Mrs. L. P. Bronson, which is reserved as the nucleus of an 'Egret Fund.' We here publicly thank Mr. Dimock for his interest, the publishers for their coöperation, and the contributors.

In a letter written by Mr. Kirk Munroe, April 15, 1906, he says: "I have just returned from a cruise to Cape Sable, where on account of proximity and association, I was roused to a great interest in the Bradley case. Last Monday

Mr. Ingraham and I visited his grave, in a cocoanut grove, on the point of East Cape Sable, overlooking the broad waters that he strove so faithfully to make safe for the feathered life that beautified them. The grave is on a shell ridge beyond reach of the highest tide, and itself a mound of pink and white sea-shells." Mr. Munroe then suggests that the Florida Audubon Society erect a memorial tablet to mark this grave. Acting on this suggestion the Executive Committee voted to do so. While plans were being made, a request for contributions for the same object was proposed by Mr. Dutcher in the National report for October, 1906. Through the kindness of Mr. Dutcher, \$16 sent him by various contributors was given to the Florida Society to add to their funds and an appropriate bronze tablet affixed to a headstone will mark the spot where the body of Guy M. Bradley lies. A letter from Mrs. E. R. Bradley reads: "The tablet in memory of our dear son is received. We thank all the kind friends who have united in getting it." The tablet, which is of bronze and measures twelve inches by eighteen inches, is reproduced herewith.

To Mr. Kirk Munroe and to contributors especial thanks from the Florida Society are due. — MRS. KINGSMILL MARRS, *Chairman of Executive Committee.*

Illinois.—The Illinois Audubon Society entered its second decade April 1, 1907. Of its present directors, five have been members of the board for the ten years of the Society's existence. Two general meetings have been held this last year; one in December with Mr. W. L. Finley, as speaker, and the annual meeting in May, when Prof. Francis Herrick spoke on the 'Nest Building and Life of Wild Birds.'

No Leaflets have been published but a Migration Record for Schools has been printed and is being sent to teachers. Several of the directors have done good work in some of the Chicago schools and migration records, charts and Leaflets have been given by the Society in some cases.

The excellent work done in many of the schools of the state is increasing, being largely due to the interest in birds of many teachers and a few of the county superintendents. In some of the counties, every school in the county observed Arbor and Bird Day.

In the annual letter of the secretary in the Arbor and Bird Day Annual, the subject of Government Reservations for Bird Protection was treated and the suggestion made that the children consider their school grounds as 'reservations' and themselves as 'wardens.'

At the meeting of the Illinois Federation of Women's Clubs last October, largely through the efforts of Mrs. Frahe, the president, a resolution was adopted, placing the State Federation on record as against the wearing of feathers. Mrs. Decker, president of the General Federation, was at the meeting and through the kindly offices of herself and Mrs. Fletcher, chairman of the Outlook Committee of the General Federation, and after correspondence with Mr. Dutcher and the secretary of the Illinois Audubon Society, the subject of Audubon work

was considered at the meeting of the directors of the General Federation held last June; the results being that Audubon work was made part of the duties of the Forestry Committee.

At our annual meeting, the president, Mr. Deane, stated that some of the largest wholesale and retail millinery dealers in Chicago had assured him that there was a great decrease in the sale of feathers. Another encouraging statement was that the local Millinery Association, under the leadership of Mr. Bode (a warm friend of the birds) had practically agreed to conform to the main principles of the Audubon Society.

At the session of the state legislature last winter, some improvements were made in the game laws. The open season for Woodcock and Mourning Doves is shortened a month and the day's 'bag' for Ducks and water-fowl is reduced from thirty-five to twenty, and for Quail and other game-birds, from twenty-five to fifteen. A backward step is the passage of the bill offering a bounty on Crows and their eggs. This was passed in spite of the remonstrance of the State Game Commissioner and the Audubon Society. An effort will be made to repeal this bill.

The secretary of the Farmers' Institute, Mr. H. A. McKeene, has recently issued a valuable article on bird protection, which is being widely circulated in the state. At the state meeting of the Institute last winter, a strong resolution was passed against the killing of Quail, Prairie Chickens, Pheasants or any common bird, and also asking the legislature to pass laws forbidding Sunday hunting. One of our directors, Mrs. E. S. Adams, has recently assumed charge of a department on Audubon work in 'School News,' a paper that reaches many of our teachers. The 'Prairie Farmer,' Mr. C. P. Reynolds, editor, is also giving part of its space to bird subjects. The Society has sent out during the year, through its Senior and Junior Departments, 10,122 Leaflets.—MISS MARY DRUMMOND, *Secretary-Treasurer*.

Indiana.—For the past year the regular work of a State Audubon Society has been carried on in this state much as in others. Perhaps this report would be more useful if it told of some of the ways of work we have found most helpful, rather than of routine and general work.

The school authorities, from the Superintendent of Public Instruction to the kindergarten practice teachers, are awake to the value of bird-study in the schools, and the Bird and Arbor Days are observed with real enthusiasm. The teachers work directly with the materials in hand; during the heavy snows of last winter, school children in various parts of the state were feeding the birds and reporting on what they saw was an absorbing part of their school work.

Today, in many of the schools of this city, the pupils are carrying the infested branches of trees and nests of caterpillars to school with them, that the pests may be destroyed. They understand that the birds are gone, and so it becomes necessary for some one else to do the birds' work, and this unusual invasion

of caterpillars is turning out to be an object-lesson on the value of birds that will stay with these pupils a long time.

An Audubon worker was asked to write a bird letter, requiring an answer, to certain grades of pupils in the city schools. The work was primarily an exercise in letter-writing for the pupils. The bird letter was printed and put into the hands of the pupils, resulting in thousands of replies telling of childish experiences with the birds, and showing that even the smaller pupils have an intelligent appreciation of bird-life.

The schools recognize the usefulness of the Audubon work to such an extent that the annual meeting is eagerly desired by many of the cities of the state, although four sessions are already held; two evening sessions, one afternoon session in one large assembly hall especially for the older pupils and the teachers, and these meetings are always crowded. However, the most interesting work is that of the morning. All available bird speakers are pressed into service, and bird talks are given in every school in the place. Even the tiniest tots want their bird talk as was shown last March, when a small room, used for the overflow of kindergarten pupils, was overlooked. The teacher was overheard to say that her babies were almost crying, so disappointed were they at missing their expected treat, and the tired visitors insisted on giving the little ones their talk, after all.

We have been fortunate in having the opportunity of entering upon a field of work which is peculiarly welcome to our members. Mr. William Watson Woollen, one of our charter members, some years ago became impressed with the fact that with the increase of population many of the native birds and flowers were driven away because of the disappearance of their special haunts. Feeling the necessity for a place where the native life might be fostered and preserved for the pleasure and study of the present and future generations, he purchased a tract of land, not far from Indianapolis, comprising creek bottom, upland and woodland. This 'Buzzard's Roost' affords an ideal place for many kinds of birds that are fast disappearing from Indiana, as well as protection for those that are abundant. It is preserved for the trees, birds and flowers, and will eventually be given to Indianapolis to be held for this purpose. Mr. Woollen desires members of the Audubon Society, and all nature-lovers and students, to make use of this out-of-doors. The hope is that, through the influence of the Society, like refuges for wild life may be established in many parts of the state.—MISS FLORENCE A. HOWE, *Secretary*

Iowa.—The appeal made by the chairman of the Outlook Committee of the General Federation of Women's Clubs, Mrs. J. T. Fletcher, of Marshalltown, to all club women to take action and sign a pledge in regard to the use of the aigrette and feathers of wild birds, was strongly endorsed, and the members of the Audubon Society will present this pledge in connection with the Audubon pledge to many organizations of women's clubs in the state. The Society will

also take steps to post warning notices wherever and whenever necessary for the enforcement of the Model Law.

During the year the following literature has been distributed: About 500 circulars on the 'Value of Birds to Agriculture,' at farmers' institutes, 800 copies of the Model Law, as passed in Iowa in 1906, and 3,000 National Association Leaflets to teachers' institutes, Chautauqua meetings, etc. Many circulars and National Association Leaflets have been sent on request to members of women's clubs, superintendents of public schools, and teachers in general.

In spite of the fact that there seems to be a strong sentiment in favor of bird protection in Iowa, there has been only a slight increase in membership during the past year, and it is still difficult to secure local secretaries or active workers who take more than a passing interest in the protection of bird life or the enforcement of the Model Law.

School children, in kindergarten and primary grades, are being well instructed concerning birds, and are encouraged to study the many phases of bird-life in their natural haunts by actual observation, as well as from books and charts which are quite liberally provided.

Prof. John E. Cameron, of Kansas City, Mo., recognizing the need of preparing the teachers for this work, has given numerous lectures in Iowa, at teachers' institutes, on bird-life, illustrated by a series of stereopticon views. He believes that there are enough strange things in nature to interest and surprise the young without conjuring up a lot of things which are not true. About three hundred pictures, many of which were finely colored, were flashed upon the screen, showing the many varieties of song-birds and others found in the beautiful fringe of woods along the banks of rivers and lakes of Iowa. Professor Cameron's discourse was helpful and full of practical information, and withal inspiring a love for the feathered creatures of the air. The Agricultural Department of Farmers' Institutes has also been active in securing illustrated lectures along this line, and in this manner educating the farmers as to the value of birds in farm life.

The members of the official board are constantly in receipt of invitations to give talks on bird-life at public gatherings. Mrs. W. B. Small, president, represented the Society and delivered an address at the meeting of the Iowa Federation of Women's Clubs, in Oskaloosa, in May. Dr. Margaret Clark, chairman of the Executive Committee, on several occasions has been called to give impromptu talks, and the secretary has received and accepted an invitation to read a paper at the meeting of the Iowa Park and Forestry Association, to be held in Des Moines in December.

Mr. Enos A. Mills, of Estes Park, Col., who is sent out by the Government in the interest of forestry, will speak of the value of birds to forests in the lectures which he will give this month in Des Moines, Marshalltown and Waterloo.

We are greatly in need of workers in Iowa, who will act as local secretaries,

secure members, distribute literature and pledges, post warning notices and attend to legislative work.

Pledge adopted by the Iowa Audubon Society:

"I HEREBY PLEDGE MYSELF, To refrain from wearing the plumage of birds other than game-birds, domesticated fowls or the Ostrich; To discourage the destruction of wild birds and their eggs; To encourage the study of birds and nature in schools."—MRS. WILLIAM F. PARROTT, *Secretary*.

Louisiana.—As a direct result of the activity of the National Association of Audubon Societies on the coast of Louisiana, fully 75,000 Royal Terns, Forsters Terns, Black Skimmers and Laughing Gulls were, during the past season, added to the stock of birds living on the Gulf coast.

This year has been a fatal one to the birds. Just at the height of the breeding season on, May 30, an unprecedented high tide submerged almost all the breeding islands. The consequence was that, instead of the 250,000 birds which we expected to show to the credit of the National Association, only a fourth of that number were raised. If it had not been for the warden service maintained by the Association, the birds would also have suffered severely at the hands of the pirates and egg-stealers haunting these waters. Under the circumstances, and until our State Society is in a position to assume this responsibility, we sincerely trust that the National Association will maintain the present warden service, and, if possible to do so, extend its limits and usefulness.

On the east side of the Mississippi river our State Society controls a bird-breeding area of land and water approximating 750 square miles. On the west



AUDUBON PATROL BOAT NO. 4, ROYAL TERN
Employed to protect birds on the Gulf Coast

side of the river there is a breeding area of probably the same extent which, up to the present time, has never been patrolled by a warden, with the result that during the breeding season boat-load after boat-load of birds' eggs are taken from the islands without let or hindrance. This condition of affairs will continue until the National Association extends its activities to those regions by appointing wardens who will see to it that the efficient provisions of our state law are carried out to the letter, and the birds permitted to breed in peace.

At the request of the president of the National Association, our Society made an investigation of the local quill trade. We found the retail millinery establishments of New Orleans carrying large stocks of Pelican, Eagle, Hawk and Owl quills. Many arrests were made, and as all the cases were decided in the courts against the dealers and in our favor, the quill trade has been broken up.

By far the most important event which our Society has to chronicle during the past year is practically two decisions of our state supreme court, affirming that the Model A. O. U. Law enacted by our state legislature is within constitutional limits.

From all this, it will be seen that the Louisiana Audubon Society is carrying out the aims and purposes of its organization, and in our state we not only have laws which protect the birds, but we are also enforcing them so effectually that traffic in birds and birds' plumage has almost ceased.

Recently we bought another breeding island (named Sundown Island), making the eighth. With the seven islands of Breton reservation belonging to the Federal Government under our control, we lay claim to having the largest wild-sea-bird-breeding area in the world, and we expect in a few years, through the aid of the National Association, to show the greatest sight in bird-breeding that has ever been seen.

Last year President Roosevelt sent us the following message: "Hearty congratulations to the Audubon Society of Louisiana."

This year, when Newton C. Blanchard, the Governor of our state, signed the deed giving us title to an island (Battledore) sold by the state, he sent us the following message: "Use sparingly of the game-birds, even within the permit of the law. Protect from destruction altogether the non-game birds,"—in which sentiment we all heartily concur.—FRANK M. MILLER, *President*.

Maine.—The local secretaries remain the same as last year, and the membership nearly the same, consequently the work of the local societies has been chiefly educational. On the other hand, the work of the state secretary has been chiefly militant, dealing with legislation, attending to a few complaints, and furnishing information and laws concerning birds. Much of the latter work cannot be separated from that performed at the direct instance of the National Association, yet the value of the state organization should not be overlooked. Very gratifying relations have been developed between the Society and the 'Brotherhood of Sportsmen.'

Through the generosity of the National Association a set of fifty colored lantern-slides, belonging to the equipment of the Society, are to be made an important feature of the coming winter's work.—ARTHUR H. NORTON, *Secretary*.

Maryland.—The Maryland Audubon Society is but an infant in age, having celebrated only one anniversary. There had previously been an Audubon Society in the state, and I am sure that much plowing and sowing must have been accomplished by this senior society, for there is now manifested a great interest in bird-life, and a strong desire to protect and cherish these little creatures which are truly living poems set to music; so, perhaps, the younger organization will reap an abundant harvest which will be the result of former pioneer efforts.

The membership of the present Society is growing. The law of its growth is very simple,—each bird-lover interests his or her friends by talking to them of the birds, their beautiful home life (so analagous to that of the human family), the pleasure they give by their songs, and their great assistance to agriculture. Enthusiasm is contagious. Those who were formerly indifferent begin themselves to study, and find the subject so alluring that they soon become ardent admirers and lovers of their "little brothers of the air."

The president, Mrs. Charles W. Lord, has both by her pen and charming talks shared, with others, the delight that her bird neighbors have contributed to her own life. The vice-presidents were selected from men who are prominent in the educational and commercial interests of the city.

The chief aim of the Society is to enlist the coöperation of the children. To this end, bird clubs are being organized in the public schools, and the eager response of the boys and girls is cause for the greatest encouragement. A debt of gratitude is due Professor Van Sickle and the Nature Committee of the public schools. The systematic study of birds is a part of the curriculum. Children are also encouraged to make charts recording their observations. This has a great practical value. That destructive tendency in the child which impels him to throw the stone is thus checked and diverted; more than that, it is converted into a constructive channel. We hope to see the day when the field-glass and camera will be considered satisfactory substitutes for the gun.—MISS MINNA D. STARR, *Secretary*.

Massachusetts.—During the past year rather more deaths and resignations than usual were reported, but enough new members came in to more than balance the loss. Our membership is now 6,549. Of these 1,934 are Juniors, and 116 local secretaries.

Our four traveling libraries have been in use where they were appreciated. Educational and other Leaflets, including cloth warning-notices and copies of the law, have been distributed freely. Our three traveling lectures, bird plates, charts and calendars, have been in good demand.

We have decided not to issue new plates for the 1908 calendar, but to use the same plates we had for our 1906 and 1907 calendars, giving patrons a chance to buy either set. These are the plates that were printed in Japan.

A Bird Class, under the leadership of Mr. C. J. Maynard, was substituted for the usual lecture course. Besides the regular monthly meeting of the Board of Directors, a successful public meeting was held, with Mr. Ralph Hoffman, Mr. Edward Howe Forbush and Dr. George W. Field as speakers.

Legislation at the State House was closely watched, as usual, by our Protection Committee, and complaints of violations of law received were reported to the state officers, the Fish and Game Commission. The Society works closely in touch with the State Board of Agriculture and the Fish and Game Commission.

An Italian gentleman, who has become interested in our work, has written us an excellent warning poster and leaflet in Italian, with which we hope to do some effective work. The poster is also used by the Fish and Game Commission.

A report of our work for the past five years is being prepared by the secretary.—MISS JESSIE E. KIMBALL, *Secretary*.

Michigan.—The Michigan Audubon Society began the year with much trepidation, not only fearing the meeting of the legislature, but also the sportsmen and farmers who had bills to offer, which if they became laws, would undo much of the work of our Society. The legislature remained in session until June. During the session bills were introduced to pay bounties on Kingfishers, Great Blue Herons and English Sparrows. A bill for a bounty on 'Chicken' Hawks was urged by farmers. The Society opposed these measures vigorously. The bill for a bounty on Kingfishers and Great Blue Herons passed the House, but the Senate Committee did not report it. The Audubon Society was responsible for the defeat of the Hawk bounty by taking advantage of a dilemma.

We insisted on knowing what was meant by 'Chicken' Hawks. Those urging the bill asked many authorities, but were unable to ascertain with any certainty. During the time discussion was taking place, we sent all the literature concerning the value of Hawks we could secure. Dr. Merriam's statement as quoted in Mr. Chapman's preface to the 'Birds of Eastern North America,' concerning legislation on Hawks in Pennsylvania, did more to halt the legislature than any other literature presented. A number of sportsmen desired the Meadowlark to be put on the list of game-birds. Our Society aroused so much sentiment on this question as to have it passed over by the Game Committee. We also strenuously opposed a proposal to lengthen the season for spring shooting. We opposed a bounty on English Sparrows, but finally withdrew our opposition with the understanding that bounties would be allowed during the winter months only. The bill passed with such restriction.

We increased the prohibition of Sunday shooting to two more counties, and found such a strong sentiment among the members of the legislature from the agricultural districts against Sunday shooting that we felt if they had had a

leader on this question, a bill would undoubtedly have passed prohibiting Sunday shooting throughout the state.

The Michigan Association, composed of sportsmen, was organized for game protection, including song and insectivorous birds. The Audubon Society joined forces with the Association, and urged the Association to request the legislature to let game matters rest until they had time to canvas the situation in the state, and make recommendations, which could not be done before the meeting of the legislature in 1909. The officers of the Association made such a request.

The work of protection has made favorable progress in the state, the educational institutions showing increasing interest in the subject. The secretary prepared a booklet of one hundred and fifty pages on Audubon work. One thousand copies were printed, but the request from colleges, schools, libraries and public officials for copies was so extensive that it would have taken three times as large an edition to supply the demand. This showed an interest that surprised the Society, especially since requests came from all portions of the state.

By reason of a contribution from the National Association we were able to attend and aid in the formation of the Michigan Humane Society, composed of the various societies of the state that carry on humane work for the protection of children, animals, and of animate life generally. Our Society became a constituent member of the State Humane Society. Also, with aid from the National Society, the secretary was able to take advantage of invitations to address educational meetings and academies in various points in the state.

The Society was, to some degree, instrumental in bringing about a change in the game warden system. One of the state deputies, who blocked our efforts to prosecute violators of the game law, was removed, and another appointed in his stead who has proven himself worthy. This new deputy, Mr. William Daniel, has been in consultation with the secretary at various times, and has been ready to hear complaints coming to our Society from various territories in his jurisdiction, and has acted on the same. We are expecting improved conditions from the new State Game Warden, Mr. Charles Pierce. All things considered, we feel that the year has been one of advancement for Audubon work from the moral and intellectual standpoint, though financially, we have made little progress.

Our Society has offered a series of three prizes to the school or Society doing the best work in bird protection. The prizes have been selected and we are now waiting for reports.—JEFFERSON BUTLER, *Secretary*.

Minnesota.—As in former years, for want of sufficient funds our work has been somewhat circumscribed. We have, through the kindness of the National Association, been able to distribute several thousand Leaflets, which mostly have gone to the border counties and schools of our state. We have also helped

northern Iowa and western Wisconsin to a certain extent. We have heard of the results of the distribution of this bird literature in many cases, with results exceedingly satisfactory to this Society.

It has helped to get a number of branches organized in the smaller towns, and has interested a large number of teachers in the public schools, who have formed bands, and in this way started an education of the young people, which ought to make good adult protectors for our wild birds later on.

We have taken up a work in our large towns, which seems to need attention, and which I have not heard mentioned before. We have found that the shipping of small birds from abroad in small cages, four or five inches square, has become a large industry in our principal cities. We have found that these birds, after arriving here, were kept in these cages, which were filthy and too small for any exercise of the inmates, and that the food given them was thrown into the dirty cages. We have insisted that these birds all be changed into larger cages, giving them more freedom, better air, and cleaner food and quarters, and also have insisted that these cages be kept clean. We had a law passed in our legislature two years ago which would enable us to enforce such a demand. I am somewhat curious to know whether like work has been taken up in any of the other cities or states.

We also arranged with the State Humane Society, and the local branches, to post the country with circulars, giving information to the people that the killing of song-birds and the destruction of their nests is, under our law, a penal offence, and also, offered a reward for the detection and the conviction of any one infringing this law. This, I believe, has done more good, and reached more people and protected more bird lives, than anything we have been able to do as a Society.

I think I may safely say, that although we have not made much noise, we have accomplished more work during the last year than any previous year, that our membership is steadily increasing, and that our work is having a decidedly good effect, especially upon the young people. The almost total disappearance of birds worn as ornaments is one of the flattering results of our law, as is also the agreement of our millinery jobbers to discontinue the sale of mounted birds.

The last few years have certainly, through the influence and hard work of the National Society, accomplished wonders. We feel today as though we would like to be financially strong enough to establish a branch in every county, and flood the whole state with bird literature.

The writer, upon a late occasion in conversation with a farmer, was told the following: "We were sowing a field not long ago, and my two boys noticed a flock of birds following after the seeder. They made up their minds that the birds were eating the grain, so they got out their shot-guns and killed quite a number. I was curious to see how much grain one of these birds would eat, and upon opening the crops of several, I was astonished to find that they were full of fresh worms, but no grain. I told my boys that if I caught either one of them

shooting birds on the farm, or allowing anybody else to do so, I should make an example of them. I had learned a lesson."—J. W. TAYLOR, *President*.

Missouri.—I regret to say that the work of the Audubon Society in Missouri, which for four years has been active, encouraging and full of practical results, has met with a set-back, which may, for some years to come, prove in a manner, disastrous. The Audubon bill for preservation of birds and game, which was passed at a previous session of our legislature, has been attacked successfully by its enemies in the halls of legislation. Influenced by politico-commercial reasons, the very life of the bill or law has been weakened by an amendment abolishing the offices of game warden and deputies, and substituting therefore the sheriffs and deputies of the different counties. No argument is necessary to show that sheriffs and their deputies will not enforce this law among their friends and neighbors, and that without independent game wardenship the law cannot be enforced at all. To the disappointment and astonishment of the officers of the Audubon Society, and of the sporting clubs over the state, the Governor approved the iniquitous amendment, despite protests from all sections. The basic work of the Audubon Society, however, remains, but years will be required to build again the structure thereon which this pernicious amendment has destroyed. I regret that I cannot give a better report of the present condition of Audubon work in Missouri.—WALTER J. BLAKELY, *President*.

Nebraska.—How I wish that the Nebraska Society might send a long and interesting report to the National Committee this year, instead it must be but a word or so. Lack of funds and heavy personal cares have prevented the officers from carrying forward plans for a more thorough state organization.

The work done this year, as every year since our organization, has been with the younger generation. The Audubon sentiment is strong in the public schools of the state. The State Superintendent of Public Institution fosters it in every way. Increase in sentiment toward bird protection is noticeable, in a general way, among educators, farmers and school children.

The work of the National Association among the farmers has wrought a marked change in this state, but the conscience of women in the matter of millinery is yet to be awakened.—MISS JOY MONTGOMERY HIGGINS, *Secretary*.

New Hampshire.—The very full report for 1906 renders needless any special reference to our routine work. In the legislature a bill was passed making a closed season for five years on Wood Duck and Upland Plover. This action places New Hampshire in the van, alongside with Massachusetts, in the movement for the preservation of these fast-vanishing species.

With the coöperation of Mr. William Dutcher and Mr. Abbott H. Thayer, we have issued warning posters concerning protected birds in general, and Wood Duck and Upland Plover in particular. Besides being distributed for use as

roadside posters, they have, with the consent of the Post Office Department, been sent to all the postmasters in the state with requests for their display.

Through the influence of our Society, the following lectures have been given during the past season before the Manchester Institute of Arts and Sciences: 'Among the Island Water Birds,' by William L. Finley; 'Song Birds of New Hampshire,' by F. Schuyler Matthews; 'Among the Egrets with Warden Bradley,' by Herbert K. Job, and 'Useful Birds and Their Protection,' by Edward Howe Forbush.—MRS. F. W. BATCHELDER, *Secretary*.

New Jersey.—While the interest in the Audubon Society of New Jersey as a Society may not have increased materially during the past year, the interest in birds does not seem to be declining. New members come in slowly, but we hear of bird-lovers in all directions, and this general interest as a result of more wide-spread education is again in the right direction.

The legislative work done by the Society, and by the National Association, in New Jersey has been an important one, as a vicious bill was killed which ordered the transfer of the Dove and Flicker to the game-bird list. Vigorous measures were taken by the Society to pass an important anti-spring shooting bill for the wild fowl and shore birds. Although the House passed this bill, it was held in committee by the Senate, and killed there by a vote of two to one. As usual, the friends of a bad cause were more active than those on the side of righteousness, for at the hearing in the Senate few presented themselves to urge the protection of the birds.

In this respect New Jersey is a stumbling-stone, and a rock of offense to all the neighboring states who send their sportsmen to destroy our shore and other birds.—MISS JULIA S. SCRIBNER, *Secretary*.

The La Rue Holmes Nature Lover's League.—An aggressive movement in behalf of birds was recently organized at Summit, New Jersey, through the ardent love for nature of a young naturalist, whose brief career was closed when but just entering upon this field of loving service. Organized in July, 1906, an executive board, together with directors, chosen from various localities, form a central organization with the power to create chapters in neighborhoods and schools. The present membership, which reaches about fifteen hundred, chiefly among the young, will shortly be materially increased by the addition of chapters about to organize.

Closely allied in interest to the Audubon Societies, whose Bluebird badge is also the League emblem, the Audubon Leaflets have, during the past year, been distributed monthly for study in schools wherever organizations exist. Additional advantage will arise, in the coming year, through the universal writing of essays each month in connection with this study, and also through the increased use of the colored and outlined Audubon Leaflets.

Nineteen of the forty lectures and addresses given during the recent past

in the interest of birds, forest and wild flowers, were presented through the courtesy of the National Association, Mr. William Dutcher being the first speaker after the first conception of the movement; and Mr. Beecher S. Bowdish, in his many lectures, quickening the interest in, and love for "our little brothers of the air," through his words and the presentation of his very beautiful lantern-slide-pictures.

The basis of the League is the sentiment of kindness,—a gentle consideration for the weak—a sentiment which creates a co-partnership among its members in defending each remnant of passing nature; which awakens to a conscious joy in the act of relieving suffering, or of creating content in behalf of even the most humble form of God-given life.

During the past year it has been the interest of the League to awaken energy in conserving nature's riches, accentuating its necessity through press notices, addresses, and the distribution of about four thousand Leaflets in the interest of our passing birds, forests and flowers of the wilds.

While it is too true that nature must recede before the advancing step of civilization, it is also true that a universal love and unselfish consideration for the fair wings of the air, the blooms scattered under foot, may save for future generations at least a remnant of the vanishing pageants of the year.

New York.—Less work of an initiative nature has been undertaken during the past year than heretofore. Slowly and quietly, however, the educational effort goes on, and the fruits of such work as many of our faithful local secretaries are doing, the future alone can show. The teachers are interested throughout the state. Many reports are received of successful boys' clubs, and of these it is always a pleasure to hear and to help in every possible way. The distribution of thousands of Leaflets and of wall charts, upon application, has been continued. Our present membership is 8,770.

In regard to legislation, this has not been an idle year. Mr. Dutcher, as president of the National Association, was the instigator of two bills in behalf of bird protection; one to prevent the sale of wild fowl after the commencement of the close season (allowing dealers ten days only in which to dispose of surplus stock); the other bill was to forbid cold storage of any birds or game. In spite of the fact that the aid of Audubon workers in all parts of the state was solicited by means of appeals issued by Mr. Dutcher, and sent out by the New York Society, and every effort made to secure the passage of the bills, they were never reported upon by the committees to which they were referred. On the other hand, the attempts to pass dangerous Foreign Game Sale bills were frustrated by Mr. Dutcher's vigorous action.

The matter of most concern to the Society, as is shown by the great number of complaints received, is the shooting of small birds, especially Robins, by Italians. The law posters may be distributed as widely as possible, but this does not deter the law-breakers. More stringent measures are needed; more game

wardens should be appointed. In some cases our local secretaries are very energetic in having offenders brought to justice, and, possibly, in no way is the change in public sentiment in regard to bird protection more clearly shown than by the fines which are imposed upon such offenders.

Our local secretaries are, many of them, devoted to the cause, and either by personal effort among the farmers, or by constant work with the children in the schools, or by interesting editors of local newspapers, are continually extending the circle of the Society's influence. The towns which give promise of future activity, newly brought into the fold, are: Mount Vernon, Chappaqua, Bedford, Orangeburg, Central Valley, Franklin, Berlin, Schuylersville, Fonda, Gloversville, Waterville, Binghamton, Union, Homer, Auburn, Weedsport, S. Lansing, Keuka Park, Canandaigua, Naples and Houghton. New fields of work yield much fresh enthusiasm, and with the hope which 'springs eternal' in Audubon work, we look forward to the coming year with new courage, and the anticipation of important gains.—MISS EMMA H. LOCKWOOD, *Secretary*.

North Carolina.—Audubon work in North Carolina has been moving forward in a most satisfactory manner the past year. During the session of the legislature about sixty game laws, chiefly of a local character, were enacted. These, without exception, were of a restrictive character, usually making



THE 'DUTCHER,' PATROL BOAT OF THE NORTH CAROLINA
AUDUBON SOCIETY



ROYAL TERNS ON AN ISLAND OWNED BY THE NORTH CAROLINA
AUDUBON SOCIETY

the hunting season shorter, and in some instances protecting game in certain counties absolutely for a term of years. A few bills of an adverse character to bird and game protection were introduced, but these were all killed. The general sentiment of the legislature seemed to be very friendly to the Audubon Society and its work.

During the year, sixty-five game wardens have been employed. These men have posted thousands of cloth warning-notices and distributed a large number of Leaflets of the National Association, and also those published by the State Society. We successfully conducted seventy-five prosecutions in the state courts for violations of the bird and game protective laws, and, in addition to this, caused twelve arrests where evidence was not sufficient to convict. Persons were fined not only for killing game out of season, but also for killing Night-hawks, Mockingbirds, Cardinals and other non-game birds protected by the Audubon law.

The work of caring for the breeding-places of the sea-birds on the North Carolina coast has been conducted with great care the past summer, with the result that over 10,000 young sea-birds were reared on the rookery islands. This increase was secured despite the fact of hard storm-tides, and one severe hail-storm which destroyed not less than 3,500 eggs and young birds. The largest of the breeding colonies are located on Royal Shoal and Legged Lump. During the year both of these islands have been purchased by the Audubon Society,

in order that we might be in better position to protect them and their feathered inhabitants.

An addition has been made to the office force in the person of Miss Mary T. Moore, who, as school secretary, divides her time between the work of the State Society and the National Association. During the summer months she lectured on the importance of bird preservation to the farmers' institutes in twenty-four counties, speaking to over four thousand six hundred people. When the schools opened in the fall, she began her work with the school children and teachers interested in nature study, and has been the means of greatly increasing the list of teachers who are using the Audubon literature in the schools.

Interest in the protection of wild life in the state is growing rapidly, and one of the evidences of the effectiveness of the Audubon Society work, as frequently quoted by sportsmen, is that there are more Quail in the state this year than ever before, and, by general observers, to the effect that song-birds are by far more numerous than a few years ago.—T GILBERT PEARSON, *Secretary*.

North Dakota.—With the opening of the spring of 1907, the Audubon Society of North Dakota adopted the following plans, with the hope of arousing a general interest in birds and their protection. First, evening meetings were held fortnightly, to which the public was invited, and at which papers on various phases of the work were read and discussed. Among the subjects treated were the previous work of the Society, methods of bird observation, birds of the Red river region, spring migration of 1907, etc. At each of these meetings members reported on migration, nesting, etc., and the results were tabulated for permanent record.

Three weekly field excursions were undertaken, and consisted of a Monday morning class, especially designed to interest university students, but open to all adults. There was also a Thursday sunset class, to which all were welcome, and a Saturday morning class, intended primarily for children. Each excursion was in charge of one of the more experienced members of the Society.

An attempt was made to organize local societies throughout the Red river valley, that the birds of the locality might be more systematically observed. The effort will be continued until such societies are formed.

The membership in this state is small, but contains a number of real bird-lovers, and we hope as the state increases in population to greatly enlarge the scope of our work.—MRS. A. G. LEONARD, *Secretary*.

Ohio.—The meetings of the Audubon Society of Ohio are still the charming gatherings they always were, and as we had no lack of interesting speakers and many exhibitions of choice specimens in the past year, we feel that, personally, we have gained much. Mr. Finley's talk, with stereopticon pictures, was, without doubt, the 'pièce de resistance,' and we hope to have the pleasure of another such treat.

Mr. Charles Dury, our eminent naturalist, did much to make the last year's series of meetings a memorable one, and as he discovered a unique specimen in his collection of birds of this vicinity, he has added one more name to the fauna of Ohio. He had taken the specimen at Ross Lake, April 5, 1880, and after having overlooked it for twenty-six years, discovered recently that it was a LeConte Sparrow.

Thanks to Mr. Hodges, Librarian of the Public Library of the City of Cincinnati, we had exhibitions of current literature at each meeting, with a short talk by Mrs. Hermine Hansen, teacher of Zoölogy at Hughes High School, explanatory of each volume or pamphlet of such literature.

The president and secretary conferred with Dr. Dyer, the Superintendent of the Public Schools of Cincinnati, about the distribution of Educational Leaflets. Dr. Dyer was very enthusiastic, and thought the Leaflets should not only be distributed to the various schools, but were worth permanently preserving. He advised our sending them to him in October, carefully arranged, so they may be used as a part of the curriculum. This, we hope, will stimulate the students to organize bird clubs, and that the coming year will see many of them established.

We had a number of interesting field excursions this spring, and expect to have many more next year, so we may have some personal experiences, as well as the reminiscences of others, to remember and to record. Our enrollment is increasing, our members are never lacking in enthusiasm, and we all look forward to next year's meetings with delightful anticipation.—Miss M. KATHERINE RATTERMANN, *Secretary*.

Oklahoma.—The work of the Society for the past year, though seemingly local, has been far-reaching in its results. About three thousand pages of literature have been distributed among the teachers, pupils and farmers of the territory, and while as yet but few auxiliary societies have been organized, the foundation has been laid for more and better work in the future, and permanent organizations throughout the new state. Bird-study has become a part of the common school curriculum in some of our schools, and public sentiment in favor of birds and their protection has been created all over the territory, which will surely crystallize into stringent and effective laws at the next meeting of the legislature.

Farmers' unions have taken effective action for the prevention of pot-hunters and others from killing or trapping the Quail, the Mourning Dove, the Meadow-lark and other birds,

Guthrie, the capital of Oklahoma, has enacted strong and effective laws to prevent the killing or trapping of birds, the robbing of their nests, or the exposure or sale of bird eggs within the city limits.

Two years ago one might have traveled all over a county and heard little or nothing said about birds, their value or protection; but today one can enter scarcely a farmhouse, a schoolhouse, or meet with any assembly of country

folk, that the subject of "our birds" is not at some stage of the conversation the main topic, especially among the young people, who enquire eagerly for the Audubon Leaflets, which are proving to be of much educative value, quickening the observation, and awakening an interest in all our feathered friends, and creating a thirst for more knowledge of them.—MISS ALMA CARSON. *Secretary.*

Oregon.—Our past year's work in bird protection has shown that we need to continue our efforts in educational work, especially through the country districts. At the last session of the legislature a bill was introduced by some fruit-growers which practically annulled our Model Bird Law, in that it allowed farmers, gardeners and horticulturists to shoot any or all birds which they thought were doing damage to the crops. In spite of our efforts, the bill was passed, but a strong appeal was made to Governor Chamberlain from various parts of the state, and we succeeded in getting his veto, thus killing the bill.

In order to spread the knowledge as to the economic value of bird life, our president, Mr. Finley, is writing a series of Leaflets on Oregon birds, to be published by the University of Oregon under the direction of the State Biologist. The first of these was issued in June. It was general in character, entitled 'The Study of Birds and Their Economic Value.' The second, on some of the common fall and winter birds, is soon to be published.

In addition to this, during the past summer Mr. Finley has given illustrated lectures on the economic value of birds in eight different towns in various parts of the state. He visited Forest Grove, McMinnville, Monmouth, Salem, Eugene, Albany, Grants Pass and Medford.

The sea-bird colonies at Three Arch Rocks, off the Oregon coast, have been doing well during the past year under the protection of Warden Phelps. During the breeding season he succeeded in keeping persons from visiting the rocks, so that the birds were undisturbed while nesting.

We are making the best effort possible for us in the direction of educational work throughout the state. Our corresponding secretary has written personal letters to every county school superintendent in Oregon, asking for his coöperation and good will in the distribution of our educational literature to the teachers of their county; many have answered expressing their interest and willingness to help. We expect to hear from the greater number of them to the same effect; to them we have sent packages of Leaflets tied in bundles ready for distribution.

Through our friend, Mrs. Clara H. Waldo, lecturer of the Oregon State Grange, it has become possible for us to send our literature into every Grange in the state; we have furnished her with one hundred full sets of Leaflets, securely tied into sets, ready and easy for economic distribution. We intend to make especial effort in the Granges by way of lectures, lantern-slides, literature, or in whatever way our ingenuity and means will allow, for it is here, we think, to do our most needed work between now and the next legislative session. Mr.

Finley's most excellent Leaflet is included among those of the National Audubon Leaflets that we sent out; also into each package sent to county school superintendents, and others, when it is thought advisable, we put two or more 'warning-notices,' with the request that they be properly placed. Every lady in Portland's 'Blue Book' has been favored with a set of the Ostrich and Aigrette Leaflets.

Our corresponding secretary has written, during the year, two hundred and ninety letters on Audubon matters. We have sent out the greater part of the full compliment of Leaflets furnished us by the National Society, and are waiting for more of the subjects suited for this country. The manual training classes of our city schools make bird-boxes as a part of their class work; next spring, at the proper season, we expect to make a half-holiday and go forth to place them for spring tenants.

I am sure the sentiment in favor of bird protection is growing in our state, but the state is very large and hard to cover, in consequence there is great ignorance as to the economic value of birds and their habits generally, also commercialism is the same here as in other states, but we are encouraged to believe that we are making progress and we intend to keep working.—DR. E. J. WELTY, *Corresponding Secretary*.

Pennsylvania.—The work of the Pennsylvania Audubon Society since its last report has been principally that of re-organization. After the death of its late secretary, Mrs. Edward Robins, the directors decided to re-organize the Society on the basis of three classes of membership—namely, active members, who pay annual dues, vote at the annual election and have the other privileges usual to such membership; associate members, who pay no dues, have no privileges, and are principally school children; and life members, who on the payment of \$25 are exempt from further dues, and have all the privileges of active membership.

The directors then discovered that a previous Audubon Society had been founded in Pennsylvania and chartered in 1886, but had ceased to hold meetings, so a combined board of directors was formed from this original society and the later one, and the charter formally adopted, with such new by-laws as seemed necessary. The Society is now, therefore, in a regular and permanent form, with a charter and an active and interested membership prepared to follow up the good beginning.

In May the reorganized Society was given a most interesting account of the work accomplished by the National Society, by Mr. Dutcher, as a result of which talk a number of names were added to the list of active members.

The business of reorganizing the Society on this permanent basis represented most of the 'new work' done this spring, but the old activities were still kept up. Twelve circulating libraries were kept moving in the state, and a number of school children and children in societies, such as 'Bands of Mercy,' etc.,

have signed the Audubon Pledge and received certificates of associate membership.

The increase of the public sentiment for bird protection has been quite marked during the past year in this state, largely due to the good work done by the State Zoologist, and the Audubon literature distribution in schools. Indeed, it is to the intelligent work of the public school teachers who take up the subject that the Audubon Society owes some of its best results in the country districts.

The Society hopes to follow up its reorganization this winter with several public meetings, where illustrated talks will be given by those prominent in bird protection and ornithology (which seems still to be one of the most successful ways of reaching the general public), and by special work among the schools.

In closing this report of the Pennsylvania Society, a word must be added in recognition of the splendid work done by its late secretary, Mrs. Edward Robins. Always an enthusiastic lover of animals, Mrs. Robins combined a scientific knowledge of ornithology with her sympathy for the birds, which raised the Society's work above the mere sentiment of the moment to a permanent usefulness of both economic and humane value. The directors feel that the best tribute they can pay Mrs. Robins' memory is to continue on her own lines the work to which she was so devoted.—MISS E. W. FISHER, *Secretary*.

Rhode Island.—This Society has now been in existence for ten years. If the millinery question had been the only one to which our efforts had been directed during that time, we should certainly feel discouraged. The majority of Rhode Island women wear feathers, and even members of our Society are beginning to follow the prevailing fashion, taking refuge behind the assumption that all 'made-up-pieces' are composed of 'hen' feathers. Even if such plumage could be positively identified, it would still seem, for various reasons, to be ill-advised to wear it. A letter was sent by us in the spring to the Women's Clubs of the State Federation, asking them to sign resolutions binding them not to wear feathers, and although no official action was taken, yet many individual signatures were received. The interest of such women will be of great value to the cause, and we hope that the coming year will show the effects of their influence.

Our branch societies now number thirty, and our membership has increased from 1,100 to 1,646. Most of the new accessions, however, have been children, who pay small fees, and we have only one hundred and twenty-five sustaining members. The chief interest shown in bird-study has been in the rural districts. Many teachers there are giving attention to the subject, and we have constant requests for literature and charts. With the assistance of the National Association, and of our state officials, we have been able to place one hundred and fifty colored bird charts in the country schools. Leaflets to the number of 15,000 have been distributed, and twelve copies of BIRD-LORE have been sent regularly to branch societies. Five traveling libraries, which had seen much use,

were renovated, and two new ones added to the number, and all are continually moving from school to school.

At our annual meeting in March, Prof. Herbert E. Walter, of Brown University, delivered an interesting lecture upon the plumage of birds, illustrated by the epidiascope. By this instrument most vivid and beautiful effects are obtained.

We have recently joined the Rhode Island League for rural progress and the League of Improvement Societies, believing that these connections will increase our usefulness.

Few newspapers in the country have taken so much interest in the subject of bird protection as the 'Providence Journal'. During the past year it has published a series of bird articles which have been valuable to students, and very interesting to the general reader. Such a department has long been needed, and all Rhode Island bird-lovers feel under obligations to the 'Journal' for this educational work, as well as for frequent editorials upon all matters relating to the Audubon Societies.—MRS. HENRY TYLER GRANT, *Secretary*.

South Carolina.—A short statement of the work of the South Carolina Audubon Society will be of some interest at this time. To begin with, the laws of this state on bird, game and fish protection have heretofore been drawn without system or regard to uniformity. Most of the laws that are now on the books cover specific counties as regards the birds, and the northern and western part of the state has no law protecting fish. I see no hope of straightening the matter except by having new uniform laws passed at the next session of the legislature.

The Society has had a man in the field as often as there was money in the treasury to pay his expenses while soliciting memberships, but he has not met with the success that we had hoped for, and the condition of the treasury at this time does not warrant further expenditure. The president has advanced a considerable sum of money which the Society has been unable so far to return, but we hope that when the shooting season commences the licenses from non-resident hunters will enable us to prosecute the work with some system and energy.

We have been unable, so far, to get out any printed matter of our own, but have distributed pamphlets contributed by the National Association and the Department of Agriculture.

The newspapers of the state have given us material aid by notices of the Society, and by publishing any articles sent in by us. Clippings covering this matter have been sent from time to time to Mr. Pearson, secretary of the National Association. Our secretary seems to be doing all that is possible under the circumstances, and has visited the different sections of the state at different times, and has secured a few memberships at all points. By direction he made cases against two parties for killing Great Blue Herons. In one case we secured a

conviction, and the other case comes up for trial, the party having demanded a jury; we feel reasonably sure of a conviction in this case. It has been extremely hard to get any information about violation of fish laws, except in a general way. The laws have been violated, but we have been unable to get any specific information..

We find that by an omission in passing an amendment to the game laws Doves are not protected at all, and may be shot at any time. We are glad to state, however, that we have heard of no instance in which these birds were shot during the nesting season, and hunters have started killing them only recently. We have arranged for the appointment of all lighthouse keepers as game wardens; quite a number of game wardens have been appointed, and badges distributed. We are going a little slow in the appointment of wardens, as we wish to secure reliable parties. The work of game wardens up to the incorporation of this Society has been practically nothing. We have secured such reports as we could get from the old wardens, so as to make some comparison with the work of this Society by the end of the year, and we feel sure that the results will show a very material progress in game, bird and fish protection.—B. F. TAYLOR, *President*.

South Dakota.—The South Dakota Audubon Society is as yet only a few months old, but to date we have organized a very satisfactory Society with a large membership, and we expect to number several hundred by January first. We have placed the A. O. U. Model Law upon our statute books, and it has received very favorable comment from nearly all periodicals of the state. We have published a series of articles about individual birds in the leading state 'daily,' and these articles have, in some cases, been entirely reproduced by the state press. A series of public addresses has been given at various points in the state, at which the attendance has been large and enthusiastic.

About 100,000 circulars on bird-life have been distributed through the state, and school Audubon Societies have been formed in nearly every county. We have a very large and beautiful room in the new Masonic Temple at Sioux Falls, which is ours exclusively, and beautiful cases are being made for our collection of mounted birds, nests and eggs. These are all specimens which have been gathered in the past, as we do not sanction even the taking of an egg to increase our collection. A feature of this collection is a large number of mounted birds, not one of which was killed for mounting, but they are birds picked up after severe storms, or birds that have lost their lives by flying against wires or from other causes.

We shall have in this room a reading-room, well supplied with books and pamphlets on the subject of birds, and the room will always be open to the public.

The following is a page from a forthcoming book by President Holmes that is to go into every school in South Dakota.

ROLL OF HONOR

THE BIRDS.—For service in the cause of humanity; for making the fields to flash with color, the lakes to laugh with music, and for making the trees the very 'peaks of song'; for teaching the courage, for pioneering, the joy of honest toil, the virtue of happy mating, the spirit of devoted parentage and the satisfaction in an 'ever so humble' home; for the singing with their work and revealing to us the life in nature that 'lifts us to the skies.'

THE ROBINS.—For labor upon our lawns; for stirring childhood's fancies, and awakening in old hearts the illusions of their childhood.

THE LARKS.—For tireless hours of toil upon our farms, clearing them of insects and the seeds of noxious weeds; for singing in every field and from every fence-post; for making morning the beginning of a day and evening the promise of another.

THE BLUEBIRDS.—For picking up the berries of the ivy and the brier; for clearing our gardens of grubs, our waysides of pests upon the wing and for giving a song to the early winds to tell us that we may rejoice at the bursting of the buds.

THE CUCKOOS.—For stripping our trees of caterpillars, our gardens of spiders, our fields of beetles and for minding their own business.

THE HAWKS.—For their restless hunting of rodents and reptiles and for having eyes that see in a half-blind world.

THE KILLDEERS.—For their fight against the boll-weevil and the Rocky Mountain locust and for the love of their little fuzzy babies.

THE WOODPECKERS.—For destroying ants, moths, beetles and weed-seeds; for their tremulous tattoos and awakening calls of springtime.

THE KINGFISHERS.—For lessening the swarms of beetles, crickets and grasshoppers and reminding us that ours are 'halcyon' days, if we but make them so.

THE GROSBEAKS.—For destroying potato-bugs and caterpillars; for one of the sweetest sounds in nature that makes us glad to stop in our hurry that we may look and listen.

THE SWALLOWS.—For killing the germ-bearing mosquitoes; for suffering saved to the beasts of the field and for their cheerful 'twittering from the straw-built shed.'

THE NATIVE SPARROWS.—For using thousands of tons of weed-seed that will never choke the grain or the flowers; for their infinite presence and their unnumbered songs.

THE UNKNOWN LIVING.—For working without reward and singing without applause.

THE UNKNOWN DEAD.—That have fallen on broken wing during the wild nights; that by unhappy flight have been the prey of natural enemies and men.

Our certificates of membership have just arrived, and we shall soon have the honor of forwarding to you Certificate No. 2. with the best wishes of our young Society.

In order to help do our share toward maintaining the mother institution, we shall send you before long a large number of subscriptions to BIRD-LORE.

We have, in a direct way, checked the slaughter of Doves and of Robins, and we believe that the organization of our Society has caused a better enforcement of our game laws.—GEORGE A. PETTIGREW, *Secretary*.

Texas.—The energy of the Texas Audubon Society during the current year, has been devoted mostly to the procuring of desirable legislation, and in the latter months to assisting in the enforcement of the statutes enacted for the preservation of wild birds and animals, coöperating with the state warden and his deputies to that end. The bill creating the warden system was made dependent upon an annual license fee of \$15, levied on non-resident gunners, the resident gunners being permitted to shoot without license. From the license on the non-resident gunners it is probable that a sufficient sum will accrue to support a fairly efficient warden system, after the legal commencement of the gunning season.

In the meantime, in order to protect the birds and game from lawless gunners, who commenced slaughtering Doves, Quail, Prairie Chickens, water-fowl, deer, Wild Turkeys and everything else two months before the open season, devoted friends of the cause notably, in the Houston district, raised funds and paid salaries of deputies from their private purses.

The growth of public sentiment in favor of preservation of birds has been marked during the past four years, and particularly marked during the present year. In the population of Texas of 3,800,000, it is probable that 50 per cent have had the arguments of the Audubon Society presented to them, in some form. The press has been very generous in giving space to our literature, publishing our articles in prominent and desirable position, under handsomely displayed headlines, and often reënforcing our pleadings with able editorials. We feel also greatly indebted to the Texas educators for the strong encouragement they have given to Audubon Societies in the schools, academies, colleges and universities.

The secretary, assisted by half a dozen ladies, and about an equal number of gentlemen, has succeeded in entertaining audiences over a large area of the state with lantern lectures. In one sparsely settled county, particularly in the interest of the antelope, the peccary and the armadillo, the secretary had in his audience about everybody within a radius of twenty-five miles. The chief difficulty in lantern lecturing in Texas is transportation. Distances between points are lengthy and roads are not good. Interurban electric railways are in process of construction, and in the near future this difficulty will be in a large degree removed.

With a heart brimming full of hope, the work will be pushed forward, and the secretary trusts when winter comes, with its long nights, to be able to conduct a series of lantern lectures in the larger cities, such as Waco, Ft. Worth, Dallas, Houston, Galveston, Austin, San Antonio and other of the more prominent centers.—M. B. DAVIS, *Secretary*.

Vermont.—The membership of the Vermont State Audubon Society, and the work done by that body during the past year, shows no great increase over other years, owing largely to the fact that the Vermont-Bird Club, an older society, is working along the same lines. The latter organization, started several years ago in connection with another scientific club, includes most of the bird-lovers in the state, has the same aims as the Audubon Society, and is very active in legislative matters. It has seemed wise, therefore, to make the work of our Society largely educational in its scope, and to bring into it as many junior members as possible. In this way, the two societies do not conflict, but both together make a strong influence for the saving of the birds, and the instruction of the general public as to their value.

Several junior Societies, numbering from one to four hundred children, have been started during the past year in various towns of the state. The description of the one located in St. Johnsbury may perhaps answer for all. Meetings are held by this Society, which for convenience is divided into two sections, once a month from January to June. The children choose officers from among their own number, and conduct their meetings with much ceremony. In June a contest is held for determining those who are the best acquainted with the birds. The contestants are arranged in three divisions, according to age, the prizes in each division being five-dollar gold pieces. These prizes are donated by the president of the senior Society, Mr. C. H. Horton, and the interest created by the contest is very great. As preparation for this, bird walks are taken very frequently during the spring, these walks being lead by the secretary, or some other member of the state Society.

Several senior Societies have arranged for lectures by various ornithologists, admission to these lectures being either free or a nominal price, so that they could be largely attended by the people of the vicinity. Among other speakers has been Mr. Henry Oldys, of the Biological Survey, Washington, who has lectured in Burlington, St. Johnsbury, Johnson and other places in the state.

Some Societies have placed bird books and copies of 'BIRD-LORE' on the tables of the town libraries, and three traveling libraries, composed entirely of bird books, have been circulated in the state.—MISS DELIA I. GRIFFIN, *Secretary*.

Washington.—Modesty is becoming in a debutante, and indeed we have scarcely had time to take our bearings and get used to the lights since Missionary Finley brought us out in April. At a meeting held in the Central High School of Seattle, and presided over by Superintendent Cooper, we organized the Wash-

ington State Audubon Society with a membership of forty, since increased to over two hundred.

We believe that we have a most promising field for the cultivation of bird-lovers, and we find that protective sentiment has been already developed, and fostered to a gratifying degree by the efforts of the Washington State Game and Fish Protective Association, of which our efficient secretary, Mr. H. Rief, is the animating spirit. Our work has an assured welcome in public school circles, and we await only the advent of the man with time enough to address himself to the important task of guiding and informing an awakening interest.

There are in the interior of Washington a few Grebe colonies, which formerly suffered at the hands of skin hunters, but we do not know of recent depredations. Hawks and Owls suffer severely at the hands of unthinking farmers in eastern Washington, and we are reaping the expected harvest of 'sage rats' in consequence. Certain species of Grouse, notably the Columbian Sharp-tailed and the Sage Grouse, are possibly doomed to extinction; but, on the other hand, the spread of introduced species, notably the Mongolian Pheasant, and the Bob-white, is quite reassuring. Although the English Sparrow has been long with us, it is only recently that we have begun to notice the blighting influence of his mob tactics in our larger cities.

In the summer of 1906, and again in 1907, the president of the Society reconnoitered the islands lying off the west coast of Washington and located some thirty rookeries of sea-birds. This region is little frequented by white men, but the birds have suffered in a diminishing ratio from the depredations of Indians. An effort has been made to put a stop to this practice, ancient as it is, and the agent in charge of the Makah Reservation, Dr. C. S. Woods, has promised his hearty coöperation to this end.

Some idea of the extent of these island colonies may be obtained when I mention that probably 10,000 Rhinoceros Auklets nest on Destruction Island, and 40,000 Kaeding Petrels on Dhuoyatzachtahl, one of the Quillayute Needles group; while upon Carroll Islet eleven of the twelve species known to the entire coast were found in June, 1907. Doubtless the time will come when it will be desirable to make of the last named a government reservation.—W. LEON DAWSON, *President*.

Wisconsin.—Our Society has done little during the past year outside of educational work, which has consisted mainly in the distribution of ten or twelve thousand Leaflets amongst the schools and libraries of the state, and in the circulation of our slides and lectures.

Our membership in the school branches continues to increase as the interest amongst the school children is fostered by our little magazine 'By the Wayside,' which is still published in connection with the Illinois Society. Our classes for bird study conducted, in Madison during the spring months, were, as usual, well attended.—MRS. R. G. THWAITES, *Secretary*.

In regard to the work of our children's Audubon Societies, the teachers say they are doing good work. Many of the branches are in rural districts, miles from even a railroad, so I am not in close communication with them, but, going through some letters, I find that during the snow-storms last April and May, during the migration season, the children fed the birds at Mecedah, Rhineland, Merrill, Montello, Mauston, Antigo, Yellow Lake, Elkhart Lake, Ingram and Elk Mound. In Appleton the birds were fed and boxes put out. There are also two drinking-places in private yards. We have never had to resort to the law here, but there is a marked improvement in bird conditions.

Four years ago it was quite impossible to save a nest, but this year a brood of Catbirds were raised in a bush at the end of our bridge, so near to the sidewalk that we could look down into the nest, and any child could have taken them out. The grass all about was worn down where every man, woman and child in the neighborhood stopped to look.

The spiders have been very bad about our houses, so six families put up Wren boxes, as many as there were places, and this year we thought there were less spiders.—MISS EDNA S. EDWARDS, *Secretary, School Department, Wisconsin Audubon Society.*

MEMBERSHIP IN THE NATIONAL ASSOCIATION

\$5.00 paid annually constitutes a person a Sustaining Member.

\$100.00 paid at one time constitutes a Life Membership.

\$1,000.00 paid constitutes a person a Patron.

\$5,000.00 paid constitutes a person a Founder.

\$25,000.00 paid constitutes a person a Benefactor.

FORM OF BEQUEST

I do hereby give and bequeath to THE NATIONAL ASSOCIATION OF AUDUBON SOCIETIES FOR THE PROTECTION OF WILD BIRDS AND ANIMALS, Incorporated, of the city of New York,

LIST OF MEMBERS OF THE NATIONAL ASSOCIATION OF AUDUBON SOCIETIES

BENEFACTOR

*Albert Willcox 1906

LIFE MEMBERS

Bancroft, William P.....	1906	Huntington, Archer M.....	1905
Beebe, Mrs. J. Arthur.....	1907	Kidder, Nathaniel T.....	1905
Bingham, Miss Harriet.....	1907	Kilmer, Willis Sharpe.....	1907
Bowman, Miss Sarah R.....	1905	Lawrence, Samuel C.....	1905
Brewster, William.....	1905	Marshall, Louis.....	1906
Bridge, Mrs. Lidian E.....	1907	Morton, Miss Mary.....	1906
Brooks, A. L.....	1906	North Carolina Audubon Society.....	1905
Brooks, Mrs. Everett W.....	1907	Osborne, Mrs. Eliza W.....	1906
Brooks, S.....	1907	Palmer, Gen. William J.....	1906
Brooks, Mrs. Shepherd.....	1906	Pearson, Prof. T. Gilbert.....	1905
Browning, J. Hull.....	1905	Phillips, Mrs. John C.....	1905
Carr, Gen. Julian S.....	1907	Phillips, John C.....	1905
Childs, John Lewis.....	1905	Pickman, Mrs. Dudley L.....	1907
Clyde, William P.....	1905	Pierrepont, Miss Anna J.....	1905
Coolidge, T. Jefferson, 3rd.....	1907	Pierrepont, John J.....	1905
Crosby, Maunsell S.....	1905	Pinchot, Mrs. James W.....	1906
Earle, Carlos Y. Poitevant.....	1905	Potts, Thomas.....	1905
Earle, Miss Eleanor Poitevant.....	1905	Reed, Mrs. Wm. Howell.....	1905
Eastman, George.....	1906	Sage, Mrs. Russell.....	1905
Fay, Mrs. Flora Ward.....	1905	Satterlee, Mrs. Herbert L.....	1906
Foot, James D.....	1907	Shattuck, Mrs. F. C.....	1906
*Frothingham, Howard P.....	1905	Tufts, Leonard.....	1907
Havemeyer, Mrs. H. O., Jr.....	1907	Van Name, Willard G.....	1906
Hemenway, Mrs. Augustus.....	1905	Vaux, George, Jr.....	1905
Hoffman, Samuel V.....	1907	Webster, F. G.....	1905
Hostetter, D. Herbert.....	1907	Wharton, William P.....	1907
Hunnewell, H. S.....	1905		

*Deceased

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Agar, Mrs. John G....	5 00	Andrews, Mrs. W. L.	5 00	Balcom, H. Tracy...	5 00
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Allen, Chas. A.....	5 00	Auchincloss, J. W..	5 00	Barnes, Miss M....	5 00
Allen, C. L.....	5 00	Audubon Society of		Barnum, W. M....	5 00
Allen County Audu-		Connecticut.....	20 00	Barnum, Mrs. W.M.	5 00
bon Society.....	5 00	Austin, F. B.....	5 00	Barrows, Mrs. M...	5 00
Allen, James L....	5 00	Avery, Samuel P....	5 00	Bass, J. E.....	50
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Almon, Mrs.....	10 00	Bacon, Miss M. P...	5 00	Batten, George....	5 00
Almon, Miss M. E...	10 00	Bahr, Dr. P. H.....	5 00	Baxter, John L....	5 00
Amend, B. G.....	25 00	Baird, Miss L. H... 15 00		Beach, Mrs. H. H. A.	5 00
Ames, Miss M. S....	5 00	Baker, George L....	5 00	Beckwith, Mrs. D...	5 00
Ames, Mrs. W. H...	5 00	Baker, L. D., Jr....	5 00	Beech, Mrs. H....	5 00

Carried forw'd ..\$130 00

Carried forw'd ..\$260 00

Carried forw'd ..\$355 50

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Bemis, Mrs. F..... 5 00	Browning, W. H... 5 00	Clark, C. H..... 5 00
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Benn, Miss A. E.... 5 00	Bullard, Mrs. E. P.. 5 00	Clark, I. H..... 5 00
Benn, George W.... 5 00	Burgess, John K... 5 00	Clark, Mrs. J. T... 5 00
Bent, Arthur C.... 5 00	Burke, Jos. F..... 5 00	Clark, Miss S. E... 5 00
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Billings, Miss E... 5 00	Burr, Mrs. I. T.... 5 00	Clinch, Edward S... 5 00
Binney, Edwin.... 5 00	Bush, Mrs. E. F... 5 00	Clinch, Howard T.. 10 00
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Bird, Charles S.... 5 00	Butler, Miss V.... 5 00	Codman, Alfred... 5 00
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Blair, C. Ledyard.. 5 00	Cabanis, Winship.. 5 00	Codman, J. S..... 10 00
Blakely, Walter J.. 5 00	Cabot, George E... 5 00	Coffin, George S... 5 00
Bliss, Mrs. Walter P. 5 00	Cabot, Mrs. H. B... 5 00	Coker, David R... 5 00
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Borg, Mrs. S. C.... 5 00	Carter, John E.... 5 00	Comfort, Miss A. E. 5 00
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Breed, Stephen A... 5 00	Chase, Mrs. T..... 10 00	Cramer, Mrs. A... 5 00
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Brennecke, George. 6 00	Cheever, J. D..... 5 00	Crehore, F. M..... 5 00
"Bridgewater"..... 3 00	Cheney, Mrs. A... 5 00	Crocker, W..... 5 00
Bristol, John I. D... 5 00	Cheney, Louis R... 5 00	Cromwell, James W. 5 00
Brooks, Allan..... 10 00	Childs, Mrs. C. H.. 5 00	Crosby, Mrs. E. H.. 5 00
Brooks, F. M..... 5 00	Chisolm, A. R.... 5 00	Crosby, Stephen M. 5 00
Brooks, Mrs. P. C.. 5 00	Christian, Miss E... 5 00	Crossman, G. W... 5 00
Brown, Charles E... 5 00	Christian, Miss S... 5 00	Cudworth, F..... 10 00
Brown, David S.... 5 00	Christy, Bayard H.. 10 00	Cummings, Miss E. I. 5 00
Brown, Edwin H... 5 00	Chubb, S. H..... 5 00	Cunningham, G. H. 5 00
Brown, Elisha R... 5 00	Chubbuck, Isaac V. 5 00	Curtis, Mrs. C. B... 5 00
Brown, Hon. E. R... 5 00		Curtis, Mrs. Louis... 5 00
Brown, Frank A.,... 9 00		Curtiss, Misses.... 10 00
		Curtiss, Miss S.... 5 00

Carried forw'd ..\$676 00

Carried forw'd ..\$986 00

Carried forw'd, \$1,389 00

ANNUAL MEMBERS AND CONTRIBUTIONS, continued

Brought forw'd, \$1,389 00	Brought forw'd, \$1,782 00	Brought forw'd, \$2,287 00
Cutting, Robert F.... 5 00	Ely, Smith..... 5 00	Goddard, G. A. 5 00
Dana, Miss Ada.... 5 00	Emerson, Miss J. T. 3 00	Godeffroy, Mrs. E. H..... 5 00
Dana, Miss E. A.... 2 00	Emery, Miss G.... 25 00	Goin, James D.... 5 00
Dane, Miss A. L.... 5 00	Emery, Miss G. H.. 10 00	Goodrich, Miss J. T. 5 00
Daveis, Edward H.. 5 00	Emery, Mrs. L. J.. 20 00	Goodwin, Mrs. H. M. 5 00
Davenport, Mrs. E.B 5 00	Emmons, Mrs. R. W., 2d..... 5 00	Graham, C. E..... 5 00
Davis, Mrs. W. R.... 5 00	Enders, John O.... 5 00	Graham, Miss M. D. 5 00
Davis, Walter R.... 5 00	Eno, Dr. H. C..... 25 00	Graves, Mrs. C. B.. 5 00
Day, Mrs. A. M.... 5 00	Estabrook, A. F.... 5 00	Gray, Miss Emily.. 5 00
Day, Mrs. Frank A. 5 00	Eustis, F. A..... 5 00	Gray, Miss Isa E... 5 00
Day, Frank Miles... 5 00	Eustis, Misses.... 5 00	Gray, Mrs. Morris.. 5 00
Day, Miss K. S.... 5 00	Evans, Mrs. R. D... 10 00	Gray, Roland..... 5 00
Dean, Charles A.... 5 00	Fackler, David P... 5 00	Greene, G. S., Jr... 5 00
Deats, Mrs. E. S.... 5 00	Fairbanks, Mrs. Emma C..... 2 00	Greene, Miss M. A.. 5 00
De Coppel, T..... 10 00	Fairchild, S. W.... 5 00	Greenfield Audubon Club..... 5 00
De Coppel, T..... 5 00	Farnum, Henry W.. 5 00	Grew, Mrs. E. W.... 10 00
De Forest, H. W.... 5 00	Farwell, Mrs. John V., Jr..... 5 00	Grew, Mrs. H. S.... 5 00
Degener, I. F..... 10 00	Faulkner, Miss F. M 5 00	Griffin, Mrs. S. B.. 5 00
Detroit Bird Protecting Club.... 5 00	Fay, D. B..... 10 00	Guillauden, Emil... 5 00
Dewey, Dr. C. A.... 10 00	Fay, Mrs. H. H.... 5 00	Hadden, Dr. A.... 5 00
Dexter, George.... 5 00	Fenno, L. C..... 5 00	Hadley, Mrs. A. P.. 5 00
Dick, Mrs. M. M.... 5 00	Fessenden, F. G.... 5 00	Hagar, Eugene P... 5 00
Dickerman, W. B... 25 00	Field, E. B..... 5 00	Hanes, Miss J. R... 5 00
Dietz, Mrs. C. N.... 5 00	Finley, William L.. 5 00	Hale, Rev. E. E.... 5 00
Dod, Miss H. M.... 5 00	Fish, Mrs. C. P.... 5 00	Hall, Alfred B.... 5 00
Dodd, Henry W.... 10 00	Fisher, Miss E. W.. 5 00	Hamill, Miss E. C.. 5 00
Dodge, Mrs. C. C... 5 00	Fiske, Mrs. M. M... 5 00	Hamilton, Miss Elizabeth S..... 10 00
Dodge, C. H..... 50 00	Flavell, Mrs. L. C. 5 00	Henbach, Mrs. G... 5 00
Dodge, Rev. S. D... 10 00	Flower, A. R..... 5 00	Hardie, W. T..... 5 00
Dodge, Miss G. H.. 5 00	Fogg, Miss G. M... 5 00	Harding, Dr. G. F.. 5 00
Dommerich, L. F... 5 00	Forbes, Alexander.. 5 00	Hardy, Mrs. R.... 5 00
Domnick, Mrs. M. W..... 5 00	Forbes, Mrs. W. H.. 50 00	Harper, Francis.... 5 00
Donaldson, John J.. 5 00	Forbush, E. H.... 5 00	Harral, Mrs. E. W.. 5 00
Dorrance, Miss A.. 5 00	Foster, Macomb G.. 5 00	Harriman, Miss M.. 5 00
Dorrance, B..... 5 00	Fox, Henry..... 5 00	Harris, Mrs. J. C... 5 00
Draper, Eben S.... 5 00	Freeman, Miss C. L. 5 00	Harrison, Chas. G.. 5 00
Drew, Miss E. E.... 1 00	Freeman, Miss H. E. 5 00	Hartline, D. S.... 5 00
Drew, Henry J. W.. 5 00	Freeman, Mrs. J. G. 5 00	Hartness, Mrs. J... 5 00
Drude, Miss L. F... 5 00	Freer, Charles L... 100 00	Haskell, Miss H. P.. 5 00
Drummond, Miss E. 5 00	French, Miss C. A.. 5 00	Hatch, Edward, Jr.. 5 00
Duane, James May.. 5 00	French, Miss E. A.. 10 00	Hatch, Lyle Payson. 5 00
Dubois, Dr. M. B... 5 00	Freudenstein, W. L. 5 00	Havemeyer, J. C... 5 00
Duncan, A. Butler.. 5 00	Frissell, A. S..... 5 00	Haynes, Henry W... 5 00
Dunham, A. L.... 5 00	Fulenwider, J. J. B. 5 00	Haynes, Miss L. de Forest..... 5 00
Duryee, Miss A. B.. 5 00	Fuller, Frank L... 5 00	Hayward, Mrs. Mary Smith..... 5 00
Duryee, G. V. W... 5 00	Garrett, Mrs. E. W. 5 00	Heaton, Mrs. R. C.. 5 00
Dutcher, Mrs. W... 5 00	Garrett, Miss M. E. 5 00	Hecker, Frank J... 25 00
Dutcher, Miss Mary 5 00	Gatter, Miss E. A.. 10 00	Heinisch, R. E.... 5 00
Dutcher, William.. 5 00	Gavitt, William S... 5 00	Hendrickson, W. F.. 5 00
Dwight, Dr. J., Jr.. 5 00	Geer, Mrs. Walter.. 10 00	Henshaw, H. W.... 5 00
Dyer, Edward T... 5 00	Gelpecke, Miss A.C. 10 00	Herrick, Harold... 15 00
Eaton, E. Howard.. 5 00	Gifford, Dr. H.... 5 00	Herrmann, Mrs. E.. 5 00
Eaton, Miss M. L... 5 00	Gilbert, H. B..... 5 00	Hesse, Victor L.... 6 00
Eddy, Miss S. J.... 5 00	Gillett, Miss L. D.. 5 00	Heyward, D. C.... 5 00
Edgar, D..... 10 00	Gillingham, Mrs. Tracie E..... 5 00	
Elliot, Mrs. J. W... 15 00	Glessner, Mrs. J. J. 5 00	
Ells, George P..... 5 00		

Carried forw'd, \$1,782 00

Carried forw'd, \$2,287 00

Carried forw'd, \$2,603 00

List of Members

365

ANNUAL MEMBERS AND CONTRIBUTIONS, continued

Brought forw'd, \$2,603 00	Brought forw'd, \$2,932 00	Brought forw'd, \$3,275 00
Hicks, Mrs. B. D.... 5 00	Jenckes, John..... 5 00	Levy, Mrs. J..... 10 00
Hicks, John D..... 5 00	Jenks, Miss C. E... 5 00	Lichtenauer, Miss
Higginson, Miss	Jenks, Mrs. W. H... 5 00	Alice C..... 5 00
Elizabeth B..... 5 00	Jennings, Dr. G. H. 5 00	Livingston, G..... 5 00
Higginson, Mrs.	Jesup, M. K..... 25 00	Lodge, H. E..... 5 00
H. L..... 5 00	Johnson, F. E..... 5 00	Loeb, Morris..... 5 00
Higginson, J. J.... 5 00	Johnson, Mrs. F. S. 5 00	Logue, Mrs. Ida L... 5 00
Higginson, T. W.... 3 00	Johnson, Mrs. F. W. 5 00	Loines, Mrs. M. H... 5 00
Hill, William H.... 5 00	Johnson, W. H.... 5 00	Long, Harry V..... 5 00
Hittinger, Jacob... 5 00	Johnston, R. W.... 5 00	Longfellow, Miss
Hoague, Theodore. 5 00	Jones, Boyd B..... 5 00	Alice M..... 5 00
Hodge, C. F..... 5 00	Jones, Charles H... 5 00	Lord, Miss Cowper. 5 00
Hodgman, Mrs.	Jones, Mrs. C. H... 5 00	Lord, Franklin B... 5 00
William L..... 5 00	Jones, Miss Esther. 5 00	Loring, The Misses. 30 00
Hoffman, C. A.... 5 00	Jones, Frederick... 5 00	Loring, Mrs. W. C... 5 00
Hoge, Miss F..... 5 00	Jones, Dr. L. C.... 5 00	Low, Hon. Seth..... 5 00
Holbrook, Mrs. E... 5 00	Jordan, Miss C. M.. 5 00	Lowell, Miss C. R... 5 00
Holden, Mrs. E. R... 5 00	Joslyn, Mrs. G. A... 10 00	Lowell, James A.... 5 00
Holden, M. E..... 5 00	Kahn, Otto H..... 5 00	Lowell, Miss L..... 5 00
Hollingsworth, Mrs.	Kempster, James... 5 00	Lowell, Sidney V... 2 00
George..... 5 00	Kendall, Miss G.... 5 00	Lowndes, James... 5 00
Holmes, Charles E.. 5 00	Kennedy, Mrs. J. S. 25 00	Lowry, Mrs. A. L... 5 00
Holt, Mrs. Henry... 5 00	Kerr, Mrs. J. C.... 10 00	Loyd, Miss S. A. C... 5 00
Hopkins, Miss J.... 5 00	Kerr, Miss Lois... 5 00	Luce, Matthew.... 5 00
Hoppin, Mrs. Sarah	Kimball, Miss H. F. 10 00	Lundy, Miss E. L... 5 00
C. W..... 5 00	King, Miss E..... 5 00	Lydig, David..... 5 00
Hornblower, Henry. 5 00	King, Miss L. B... 5 00	Lyle, John S..... 5 00
Hornbrooke, Mrs.	King, M. K..... 5 00	Lyman, Henry.... 5 00
Frances B..... 5 00	King, William B... 5 00	McCullough, Mrs.
Horr, Chas. W..... 5 00	Kite, Mrs. M..... 3 00	Mary..... 5 00
Hotchkiss, C. F.... 5 00	Kittredge, S. D.... 5 00	McEwen, D. C..... 10 00
Houghton, C. S.... 5 00	Knight, Mrs. A. S... 5 00	McGowan, Mrs. J. E. 5 00
Houston, J. A..... 5 00	Kopman, Henry H... 5 00	McHatton, Dr. H... 5 00
Howe, Mrs. A..... 5 00	Kuhn, Mrs. H..... 10 00	McKee, Mrs. W. L... 5 00
Howe, Miss Edith... 5 00	Kunhardt, W. B... 5 00	McKittrick, T. H. Jr. 5 00
Howe, E. W..... 5 00	Kuser, Col. A. R... 5 00	MacDougall, G. R... 5 00
Howe, Mrs. J. S.... 5 00	Kuser, Mrs. A. R... 5 00	MacEnroe, J. F.... 5 00
Howells, Frank S... 5 00	Kuser, John D.... 5 00	Macy, V. Everit.... 5 00
Howland, Miss E... 15 00	Kyle, William S... 5 00	Macy, Mrs. V. E.... 25 00
Howland, Miss I... 20 00	LaFarge, Mrs. C. G. 5 00	Madden, Miss A. T. 5 00
Hubbard, Miss A.	Lancashire, Mrs	Mager, F. Robert... 5 00
Weir..... 5 00	Sarah H..... 5 00	Maghee, John H... 5 00
Hubbard, Miss M. E. 5 00	Lang, Charles..... 5 00	Maitland, A..... 5 00
Hull, Mrs. A. G.... 5 00	Langeloth, Jacob... 5 00	Malcom, Mrs. A.... 5 00
Humphreys, Mrs.	Langmann, Dr. G... 5 00	Manning, F. H.... 10 00
Harold..... 5 00	Lagowitz, Miss H. L. 5 00	Markham, Miss
Hunnewell, Walter. 25 00	Law, J. Douglas... 5 00	Frances G..... 5 00
Hunt, Dr. Emily G... 6 00	Lawrence, John B... 5 00	Markoe, Mrs. John. 20 00
Hussey, William H.. 5 00	Lawrence, Mrs.	Marling, Alfred E... 5 00
Huyler, W. C..... 5 00	R. M..... 5 00	Marrs, Mrs. K..... 5 00
Hyde, Mrs. E. F.... 5 00	Lawrence, T..... 5 00	Marsh, Miss Ruth... 5 00
Ingalls, Chas. E... 5 00	Lee, Frederic S.... 5 00	Marshall, Charles C. 5 00
Ingraham, E. D.... 5 00	Leigh, B. Watkins.. 5 00	Marshall, T. A.... 5 00
Inslee, Mrs. S..... 5 00	Leman, J. Howard. 5 00	Martin, Miss C. M.. 10 00
Iselin, Mrs. C. O... 10 00	Lemmon, Miss Isa-	Martin, Mrs. E..... 10 00
Iselin, Mrs. W. E... 5 00	bella McC..... 5 00	Martin, Mrs. J. W... 5 00
Issenhuth, E. C.... 5 00	Lemon, William H.. 5 00	Maryland Branch of
Jackson, Mrs. M. C. 25 00	Lester, Mrs. J. W... 5 00	the National Au-
Jamison, Chas. A... 5 00	Letchworth, Josiah. 5 00	dubon Society... 5 00
Jaynes, C. P..... 5 00	Leverett, George V.. 5 00	Mason, Mrs. E. F... 5 00

Carried forw'd, \$2,932 00

Carried forw'd, \$3,275 00

Carried forw'd, \$3,627 00

ANNUAL MEMBERS AND CONTRIBUTIONS. continued

Brought forw'd, \$3,627 00	Brought forw'd, \$4,237 00	Brought forw'd, \$4,636 50
Mason, Mrs. E. L. 5 00	Paine, Miss E. L. 5 00	Reinhold, Dr. A. J. 5 00
Mason, Miss F. P. 5 00	Paine, Mrs. R. T.,	Renwick, E. S. 5 00
Matheson, W. J. 5 00	2nd. 5 00	Reynolds, D. 5 00
Mauran, Mrs. J. L. 8 00	Palmer, Miss C. H. 5 00	Rhoads, Miss B. M. 5 00
Mayo, Miss Amy L. 5 00	Palmer, Miss D. 5 00	Rhoads, Miss L. W. 5 00
Mead, F. S. 5 00	Palmer, Miss Elsie. 5 00	Rhoads, J. S. 5 00
Meisselbach, A. F. 5 00	Palmer, Miss L. S. 5 00	Rhoads, Miss S. W. 5 00
Mellick, Mrs. G. P. 5 00	Palmer, Miss M. 5 00	Richards, Miss A. A. 5 00
Mellor, George B. 5 00	Palmer, Dr. T. S. 5 00	Richardson, Dr.
Meredith, Mrs.	Parker, Mrs. B. W. 5 00	Maurice H. 5 00
William T. 5 00	Parker, Edward L. 75 00	Richie, Miss Sarah. 5 00
Merrill, Miss F. E. 5 00	Parker, Thomas F. 10 00	Richmond, Walter. 5 00
Merriam, Mrs. D. 10 00	Parlin, A. N. 5 00	Ricketts, Miss J. 5 00
Merriam, The Misses 5 00	Patten, Mrs. W. S. 5 00	Ripley, E. L. 5 00
Metcalf, Manton B. 5 00	Patterson, W. F. 5 00	Rives, Dr. W. C. 5 00
Metcalf, Stephen O. 5 00	Peabody, G. A. 5 00	Robbins, R. C. 5 00
Meyer, Miss H. 5 00	Peabody, Mrs. O. W. 5 00	Robert, Samuel. 5 00
Meyer, Thos. C. 10 00	Peck, Mrs. E. P. 5 00	Roberts, Mrs. C. 5 00
Miles, Mrs. H. F. 5 00	Peel, W. L. 5 00	Roberts, Miss E. C. 5 00
Miles, Mrs. H. A. 5 00	Pell, William H. 5 00	Roberts, Miss F. A. 5 00
Miller, Mrs. E. S. 5 00	Penfield, Mrs. C. S. 1 00	Roberts, Thomas S. 5 00
Miller, Frank M. 5 00	Perkins, Miss E. G. 5 00	Robertson, Mrs. F. P. 10 00
Miller, Mrs. R. F. 5 00	Peters, Francis A. 5 00	Robertson, Miss J. 5 00
Miller, Roswell. 5 00	Pettigrew, G. A. 5 00	Robey, Andrew A. 5 00
Mills, Enos A. 5 00	Phillips, Mrs. Chas.	Robinson, Miss A. H. 5 00
Mitchell, Miss Mary 5 00	E. H. 5 00	Robinson, Mrs. G. H. 5 00
Mitchell, Mrs. M. B. 5 00	Phillips, Mrs. J. C. 10 00	Robotham, C. 5 00
Montgomery, Miss	Phillips, Hon. J. M. 5 00	Rodes, Joseph H. 5 00
Mary A. 4 00	Phipps, Henry. 5 00	Rodman, Alfred. 5 00
Moon, E. B. 5 00	Pickering, Mrs. H. 25 00	Rodman, Mrs. E. 5 00
Moore, Miss F. R. 5 00	Pierce, H. C. 5 00	Roth, J. E. 5 00
Morgan, Miss E. P. 25 00	Pierce, Miss K. C. 5 00	Rynerason, E. 5 00
Morris, Miss C. W. 5 00	Pillsbury, A. N., Jr. 10 00	Sage, John H. 5 00
Morris, Robert O. 5 00	Piper, Mrs. F. E. 1 00	Sage, Mrs. S. M. 5 00
Morrow, T. J. 5 00	Pitkin, F. E. 5 00	Saltonstall, John L. 10 00
Morse, Mrs. John	Planten, John R. 5 00	Sanborn, Mrs. F. A. 5 00
T., Jr. 5 00	Platt, Mrs. Charles. 5 00	Sankey, William E. 5 00
Moseley, F. S. 5 00	Pollock, George E. 5 00	Sargent, Mrs. F. W. 5 00
Motley, F. Preble. 5 00	Pond, C. H. 5 00	Saunders, W. E. 5 00
Mott, A. W. 5 00	Poor, James R. 5 00	Savings of Carola
Mott, J. L., Jr. 5 00	Pope, Alexander. 5 00	and her Brothers. 50 00
Nash, Mrs. M. C. B. 5 00	Post, Abner. 5 00	Scattergood, T. 5 00
Newton, Dr. E. D. 5 00	Post, William S. 5 00	Schiffelin, Mrs. H.
Nichols, J. W. T. 5 00	Potter, Miss C. 5 00	M. 5 00
Nicholson, Rebecca	Potts, Jesse Walker. 5 00	Schott, C. M., Jr. 5 00
and Sarah. 5 00	Potts, Miss S. B. 5 00	Schramm, Arnold. 5 00
Norcross, G. H. 5 00	Pratt, Augustus. 5 00	Schroeder, Arthur. 5 00
Norton, C. E. 5 00	Price, John S., Jr. 10 00	Schwab, Rev. L. H. 5 00
Noyes, Mrs. H. A. 5 00	Prohaska, J. F. 2 50	Scrymser, Mrs. J. A. 25 00
Oldberg, Mrs. O. 5 00	Pryer, Charles. 5 00	Seabrook, Mrs. H. H. 5 00
Opdycke, Mrs. E. 5 00	Putnam, F. W. 5 00	Seamans, C. W. 25 00
Opdycke, L. E. 5 00	Pyle, Howard. 5 00	Sears, F. B. 5 00
"Ormonde" 300 00	Rathborne, R. C. 5 00	Sears, Mrs. S. C. 5 00
Osborn, Mrs. W. C. 10 00	Read, Bartow. 5 00	Sears, William R. 5 00
Osborn, William R. 5 00	Read, Miss C. H. 5 00	Seaver, Benj. F. 5 00
Otis, Charles R. 5 00	Read, Curtis S. 5 00	Sedgwick, Mrs. E. 5 00
Outerbridge, A. J. 5 00	Read, Duncan H. 5 00	See, Alonzo B. 5 00
Owen, Mrs. M. L. 3 00	Read, W. A., Jr. 5 00	Seiss, Dr. R. W. 5 00
Paddock, Royce. 5 00	Read, Miss S. E. 15 00	Seligman, Isaac N. 5 00
Paine, Mrs. A. G. 5 00	Rees, Norman L. 5 00	Seligman, J. 5 00

Carried forw'd, \$4,237 00

Carried forw'd, \$4,636 50

Carried forw'd, \$5,016 50

List of Members

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ANNUAL MEMBERS AND CONTRIBUTIONS, continued

Brought forw'd, \$5,016	50	Brought forw'd, \$5,397	00	Brought forw'd, \$5,956	00
Seton, Ernest T....	5 00	Stilwell, Miss M. C....	10 00	Vermilye, Mrs. W.	
Sewall, J. B.....	5 00	Stirling, Miss E. M....	5 00	Gerard.....	5 00
Shannon, T., Jr....	1 00	Stone, Charles A....	5 00	von Wagenen, Mrs.	
Sharpe, Miss E. D....	55 00	Stone, Miss E. J....	25 00	G. H.....	5 00
Shattuck, G. C....	5 00	Stone, George.....	5 00	Wadsworth, C. S....	30 00
Shattuck, Miss G. A.	5 00	Stone, Herbert F....	5 00	In Memoriam, R.	
Shaw, Francis.....	5 00	Storrow, Mrs. J. J....	5 00	C. W. Wadsworth	15 00
Shaw, Mrs. G. H....	5 00	Stratton, C. E.....	5 00	Wadsworth, Mrs.	
Shaw, Dr. J. C....	5 00	Strong, R. A.....	5 00	W. Austin.....	20 00
Shaw, Q. A., Jr....	5 00	Strong, Selah B....	5 00	Waldo, C. S.....	10 00
Shaw, Mrs. R. G....	30 00	Sturgis, John H....	5 00	Wales, E. H.....	15 00
Sheldon, Mrs. H. K.	10 00	Sugden, Arthur W....	5 00	Walker, Master O....	5 00
Shepard, C. Sidney.	5 00	Swan, Mrs. R. T....	5 00	Wallace, Mrs. A. H.	5 00
Sherman, J. P. R....	5 00	Swasey, E. R.....	5 00	Walters, Frank....	5 00
Shiras, George, 3rd.	5 00	Swenholt, Jonas....	5 00	Ward, Marcus L....	5 00
Shortall, Mrs. J. L.	5 00	Taber, Sydney R....	5 00	Warner, Mrs. G. M.	5 00
Simmons, B. F....	5 00	Taber, Mrs. S. R....	2 00	Warner, Dr. H. S....	5 00
Sitgreaves, Miss M. J.	15 00	Taft, Cyrus A.....	5 00	Warren, B. W.....	5 00
Skeel, Mrs. R., Jr..	10 00	Talcott, James....	5 00	Warren, Mrs. E. W.	5 00
Skidmore, S. T....	5 00	Tarbell, Miss K. L....	5 00	Warren, Mrs. C....	25 00
Slocum, William H..	5 00	Taylor, Alex. R....	5 00	Warren, Samuel D....	25 00
Smith, Miss A. W....	5 00	Taylor, B. F.....	5 00	Watson, J. H.....	5 00
Smith, Mrs. A. J....	5 00	Tenney, Mrs. E. P....	5 00	Webster, E. S.....	5 00
Smith, Byron L....	5 00	Thayer, Mrs. E. R....	35 00	Webster, L. F.....	5 00
Smith, Rev. C. B....	5 00	Thayer, Ezra R....	25 00	Weeks, A. G.....	5 00
Smith, Miss C. L....	5 00	Thayer, Mrs. G.		Weeks, W. B. P....	5 00
Smith, Miss E. C....	5 00	A., Jr.....	5 00	Wehrhane, C.....	5 00
Smith, Mrs. G. W....	5 00	Thayer, John E....	200 00	Weld, Rev. G. F....	5 00
Smith, Mrs. J. N....	5 00	Thayer, Mrs. J. E....	5 00	Weld, Gen. S. M....	5 00
Smith, Miss L. I....	5 00	Thayer, J. E., Jr....	5 00	West, Charles C....	5 00
Smith, Robert.....	5 00	Thayer, Mrs. N....	5 00	Weston, Miss H....	5 00
Smith, Mrs. R. D....	5 00	Thebaud, Paul G....	5 00	Wetmore, Mrs. C. W.	5 00
Smith, Prof. Roy L..	5 00	Thomas, Mrs. L....	5 00	Wetmore, E.....	5 00
Smith, T. H.....	5 00	Thomas, Mrs. T....	5 00	Wharton, Mrs. E. R.	5 00
Smith, Mrs. W. M....	5 00	Thompson, Geo....	5 00	Wheeler, J. D.....	5 00
Smith, Walter M....	5 00	Thorndike, Albert..	5 00	Wheeler, S. H.....	5 00
Smith, Wilbur F....	5 00	Thorne, Samuel....	10 00	Wheelwright, Mrs.	
Smyth, Ellison A....	5 00	Thornton, L. M....	2 00	E.....	5 00
Snyder, Watson....	5 00	Tingley, S. H.....	5 00	Wheelwright, Miss	
Soren, George W....	5 00	Tinkman, Julian R.	15 00	M. C.....	5 00
Spafford, F. A....	5 00	Titus, E., Jr.....	5 00	Whipple, Mrs. H. B.	5 00
Speer, Mrs. R. E....	5 00	Todd, James.....	5 00	White, Mrs. C. T....	5 00
Spencer, C. E.....	5 00	Torrey, Miss J. M....	5 00	White, Miss H. H....	5 00
Speyer, Mrs. J....	6 00	Trainer, C. W.....	5 00	White, Dr. J. C....	5 00
Spooner, Miss M. T.	5 00	Trine, Ralph W....	5 00	Whiting, Miss G....	5 00
Spofford, Paul N....	5 00	Tudor, F.....	5 00	Whiting, Mrs. S. B..	10 00
Sprague, F. P.....	5 00	Turle, Mrs. W....	5 00	Whitney, Miss Anne	5 00
Sprague, Mrs. L....	5 00	Turner, Mrs. W. J..	5 00	Whitney, Milton B..	5 00
Spray, S. J.....	5 00	Tuttle, Dr. A. H....	5 00	Whiton, S. G.....	5 00
Squires, H. L....	2 50	Tweedy, Edgar....	5 00	Widmann, Otto....	5 00
Steinmetz, F. J....	5 00	Twombly, J. F....	5 00	Williams, Blair S....	5 00
Sterling, E. C.....	5 00	Tyson, Mrs. G....	5 00	Williams, Mrs. I. T.	5 00
Stetson, F. L.....	6 00	Unity Audubon So-		Williams, Miss M. E.	5 00
Stevenson, Miss A. B.	5 00	ciety.....	5 00	Willis, Mrs. A.....	5 00
Stevenson, Miss F. G.	5 00	Van Huyck, J. M....	5 00	Wills, Charles T....	5 00
Stewart, P. B.....	5 00	Van Orden, Miss		Wilson, Miss A. E..	5 00
Stewart, Mrs. P. B..	5 00	Mary L.....	5 00	Wilson, C. W.....	5 00
Stillman, Miss B. W.	3 00	van Wickle, Miss		Wing, Asa S.....	5 00
Stillman, William		Marjorie P.....	5 00	Winsor, Mrs. A....	6 00
O., Dr.....	2 00	van Arnim, Miss A..	5 00	Winsor, Miss M. P..	5 00

Carried forw'd, \$5,397 00

Carried forw'd, \$5,956 00

Carried forw'd, \$6,337 00

ANNUAL MEMBERS AND CONTRIBUTIONS, continued

Brought forw'd, \$6,337 00	Brought forw'd, \$6,372 00	Brought forw'd, \$6,417 00
Winterbotham, J... 5 00	Woolman, E. 5 00	Wright, Mrs. M. O.. 5 00
Winzer, Emil J.... 5 00	Woolman, E. W.... 5 00	Wright, Mrs. W.... 5 00
Wolff, Mrs. L. S.... 5 00	Wray, Charles P.... 5 00	Wyatt, W. S. 5 00
Wood, Walter.... 5 00	Wright, C. M. 10 00	Wylly, Albert.... 5 00
Woodcock, John... 5 00	Wright, Horace W.. 5 00	Yenni, Mrs. C.... 5 00
Woods, Edward F.. 5 00	Wright, J. P. 10 00	Young, T. S. 5 00
Woodward, Dr. L. F. 5 00	Wright, M. F. 5 00	Zollikoffer, Mrs.O.F 5 00
Carried forw'd, \$6,372 00	Carried forw'd, \$6,417 00	Total \$6,452 00

Report of the Treasurer of the National Association of
Audubon Societies

BALANCE SHEET

Exhibit "A"

October 19, 1907

ASSETS

Cash in Farmers Loan and Trust Company.....	\$6,199 92
Furniture and Fixtures.....	120 80
Boat "Laughing Gull" No. 4.....	\$224 65
Boat "Royal Tern" No. 3.....	2,426 81
Boat "Grebe" No. 5.....	200 00
Boat "Audubon Patrol" No. 6.....	57 00
	<u>2,908 46</u>
<i>Investments—</i>	
Bonds United States Mortgage and Trust Company....	\$3,000 00
Bonds and Mortgages on Real Estate in Manhattan (New York City).....	316,000 00
	<u>319,000 00</u>
Deficit for the year ended October 19, 1907, per Exhibit "B".	\$8,864 90
Add—General Fund deficit October 20, 1906.....	523 54
	<u>\$9,388 44</u>
Less—Balance on Special Fund, October 20, 1906.....	379 88
	<u>9,008 56</u>
Total.....	<u>\$337,237 74</u>

LIABILITIES

Endowment Fund—

Balance October 20, 1906.....	\$14,772 00
Received from Estate Albert Wilcox.....	320,000 00
Life Members, 16 at \$100.....	1,600 00
Life Members contributed to Endowment Fund.....	555 00
	<u>\$336,927 00</u>
Bradley Fund.....	\$1,900 40
Less amount invested.....	\$1,499 08
Taxes, Repairs, etc.....	90 58
	<u>1,589 66</u>
	<u>310 74</u>
Total.....	<u>\$337,237 74</u>

INCOME AND EXPENSE ACCOUNT FOR YEAR ENDING OCTOBER 19, 1907

Exhibit "B"

INCOME—

Members' Dues.....	\$4,640 00
Contributions.....	1,812 00
Interest received from Investments.....	11,152 90
Educational Leaflets, Sales.....	373 63

\$17,978 53

EXPENSES—

Office and storeroom rent.....	\$692 54
Printing.....	1,178 85
Newspaper clippings.....	26 64
Stereopticon.....	147 46
Bank Exchange.....	14 52
Launch Expenses.....	129 79
Legislation.....	107 62
Educational Leaflets.....	1,594 32
Slides.....	503 10
Electros and half-tones.....	171 78
Signs.....	39 66
Colored plates and outlines of birds.....	2,025 58
Legal Services.....	1,332 00
Drawings of birds.....	76 00
Telephone.....	59 10
Envelopes.....	146 91
Lectures—Finley.....	532 35
Biological Survey, Expense.....	349 44
Telegrams.....	82 41
Express and cartage.....	116 84
Stenographic work.....	107 25
Postage.....	775 04
Office supplies.....	177 43
Miscellaneous expenses.....	193 09
BIRD-LORE.....	1,004 42
Wardens.....	2,200 05
Commissions.....	42 50
Office salaries.....	2,470 84
Big Game Protection.....	100 00
Curran & Mead, Press Information, etc.....	1,500 00
T. G. Pearson, Salary.....	1,625 00
T. G. Pearson, traveling expense.....	884 88
E. H. Forbush, salary and traveling expense.....	1,345 73
Miss Moore, salary.....	100 00
H. H. Kopman.....	337 50

Expenses carried forward.....\$22,190 64

INCOME AND EXPENSE ACCOUNT FOR YEAR ENDING OCTOBER 19, 1907, continued

INCOME, brought forward.....	\$17,978 53
EXPENSES, brought forward	\$22,190 64

STATE APPROPRIATIONS

Texas.....	\$1,582 98
Vermont.....	10 00
Rhode Island.....	87 88
Florida.....	613 12
Oregon.....	110 80
Connecticut.....	71 22
Virginia.....	31 65
New York.....	104 15
North Carolina.....	130 32
Missouri.....	242 52
Delaware.....	8 20
Maine.....	182 68
Louisiana.....	468 83
California.....	81 30
Wisconsin.....	36 57
Michigan.....	209 39
Illinois.....	19 60
New Jersey.....	42 85
South Carolina.....	199 88
Washington.....	16 85
Georgia.....	178 70
Mississippi.....	166 55
Alabama.....	2 25
Pennsylvania.....	20 45
Ohio.....	13 65
Indiana.....	6 25
Minnesota.....	4 15
Maryland.....	10 00

Total expenses.....

4,652 79

26,843 43

Balance; - Deficit, see Exhibit "A"

\$8,864 90

Report of the Treasurer

371

PEIRCE, GIMSON & CO., CERTIFIED PUBLIC ACCOUNTANTS,
40 Cedar Street

DOCTORS J. A. ALLEN, AND G. B. GRINNELL,
Auditing Committee,
National Association of Audubon Societies,
141 Broadway, New York City.

NEW YORK, October 25, 1907.

Dear Sirs:—In accordance with your instructions under date of the 11th inst., we have made an examination of the accounts of the National Association of Audubon Societies, for the year ending October 19, 1907.

The results of our examination are presented herewith in the following Exhibits, viz:—

EXHIBIT "A"—BALANCE SHEET, OCTOBER 19, 1907.

- EXHIBIT "B"—INCOME AND EXPENSE ACCOUNT FOR YEAR ENDING OCTOBER 19, 1907.

We have examined all vouchers and paid cheques in connection with disbursements and found same correct. We have also examined the securities in the Safe Deposit Company of New York.

Yours very truly,

PEIRCE, GIMSON & CO.

Certified Public Accountants.

WM. DUTCHER, President,
141 Broadway, City.

NEW YORK, 346 Broadway,
October 28, 1907.

Dear Sir:—We have examined the report submitted by Messrs. Peirce, Gimson & Co., Certified Public Accountants, of the accounts of the National Association of Audubon Societies, for the year ending October 19, 1907, which report shows balance sheet October 19, 1907, and income and expense account for the year ending on the same day.

Vouchers and paid checks have been examined in connection with the disbursements, also securities in the Safe Deposit Company.

We find the account correct.

Yours truly,

J. A. ALLEN,
GEO. BIRD GRINNELL,
Auditing Committee.

Officers, Directors and Committees of the National Association of Audubon Societies for the Year 1907

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Attorney, SAMUEL T. CARTER, JR., of New York.

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A



1. COUCH'S KINGBIRD 2. CASSIN'S KINGBIRD
 3. ARKANSAS KINGBIRD
 (One-half natural size)

P
B. d
A
Audubon Magazine

Bird-Lore

CANCELLED
I

AN ILLUSTRATED BI-MONTHLY MAGAZINE DEVOTED TO
THE STUDY AND PROTECTION OF BIRDS

EDITED BY

FRANK M. CHAPMAN

Official Organ of the Audubon Societies

AUDUBON DEPARTMENT EDITED BY

MABEL OSGOOD WRIGHT

AND

WILLIAM DUTCHER

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VOLUME X—1908

THE MACMILLAN COMPANY

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BY FRANK M. CHAPMAN

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Bird = Lore

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The American Dipper in Colorado

By JUNIUS HENDERSON

Curator of Museum, University of Colorado

I HAVE long been convinced that the most remarkable and interesting bird inhabiting Colorado is *Cinclus mexicanus unicolor*, commonly called the Water Ouzel or Dipper—'Dipper' because of the dipping motion of the body as it courtesies on the rocks, according to the one who first applied the name to the species, not because of its dipping the body into the water, as some have supposed. True, many birds are much larger, more highly colored or in other ways more striking. Indeed, so dull and common-place is the close-fitting brown and slate-colored garb, and so well does the noise of the dashing torrent drown his clear, ringing song, that the majority of visitors to our cañons are not aware of his existence. Yet, whoever is permitted to watch him for a few moments feels that it is time well spent. Of the species known to science the writer is familiar only with the one of this region, but doubtless the habits of the others are much the same. Mr. Ridgway gives the following brief summary of the habits of the family:

"They are found only in mountainous or hilly districts, where they frequent swift, rocky streams, in which they seek their food, consisting of water insects and the spawn of fishes. They are at home in the water, under which they propel themselves by motion of their wings; in short, they fly through the water as readily as through the air. Their nest is a domed structure, usually placed behind or near a waterfall, covered with moss, and kept green by the spray which constantly moistens it."

The bird student of the 'prairie states' who is unfamiliar with the family, upon reading the foregoing sentences, may turn to his books and learn that the Dippers are allied to the Thrushes, Wrens and other members of the well-regulated order of perching birds, and from his familiarity with that order he may well exclaim: "Who ever heard of a perching bird flying through the water and rearing its young where the spray constantly moistens the nest! Next thing we will be asked to believe that this bird which has developed the ability to fly through the water with the agility of a Penguin, has retained the ability to fly.

through the air with the agility of a Flycatcher, leaving the water as neat and dry as a Duck, instead of bedraggled as a well-behaved perching bird should be under similar circumstances!" Well, that is just what he can do. To be convinced, come and see. Come winter or summer, for they are with us the year round. Driven from the higher altitudes in the winter by the freezing of the streams, for they must have open water, they seldom come out to the open plains, though I have heard their songs and seen them scurrying along the creek in Boulder, just at the edge of the plains, in mid-winter. In the spring some follow the melting of the ice almost to the tops of the mountains, wherever there are dashing brooks and open lakes of clear, cold water. No water is too cold, provided it is clear and not laden with glacial 'flour' or polluted with mud or mill tailings. No snowstorm can stop their merry whistling in the late winter and early spring.

They nest from 5,000 to 11,000 feet or more above sea-level in Colorado, almost always within reach of the flying spray from swift brooks. The collections and notes of Mr. Gale indicate that in this locality their nesting dates vary from the first of May to the middle of June, the variation doubtless in part but not altogether due to differences in altitude. With nests made so snug and dry inside, why constantly sprayed moss on the outside should be essential to their happiness or welfare has not, so far as we are aware, been satisfactorily explained, but that it is a fact seems hardly to admit of a doubt. Mr. Stevenson, of the Hayden Survey of the western territories, reported that in one case where the nest was built beyond reach of spray the birds daily sprinkled it by flying swiftly from the water to the nest and shaking off the few drops remaining on their plumage.

These birds seem to have no gregarious instincts. I have never seen more than three or four together and seldom more than two, and when more than a pair are seen it is usually a young brood soon after leaving the nest. Water beetles and the larvæ of caddisflies, dragonflies and other aquatic insects constitute a large part of their food, with fish spawn perhaps as a minor item in the bill-of-fare. The food is gleaned from the beds of the streams. Their dexterity in the swiftest currents is almost unbelievable. The fisherman who has been almost swept from his feet by the torrent in which the bird makes its way with the utmost ease and speed, is filled with admiration. Though emphatically aquatic, they are not web-footed and do not usually make their way upon the surface of the water after the manner of Ducks, but both walk and fly beneath the water, sometimes diving to great depths. In aerial flight they are rapid, and closely follow the meanders of the streams, seldom taking short cuts even when the bends are rather sharp. Their nests are not only interesting examples of bird architecture, but even more interesting in the method of their construction.

Many accounts have been written concerning the habits of these birds by observant naturalists, but all has not yet been told. Mr. Denis Gale studied

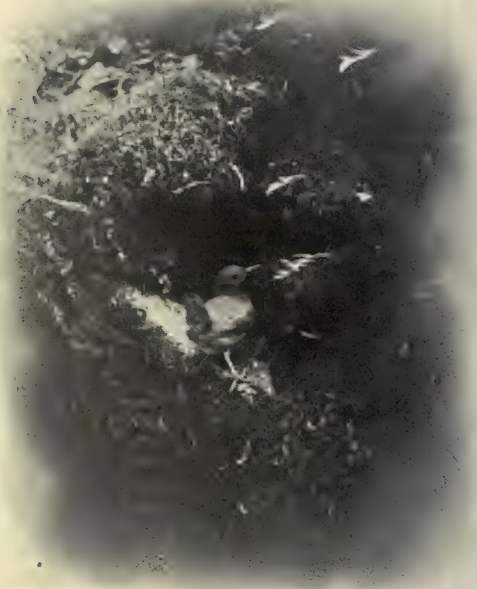
the species for many years in the mountains of Colorado and left in his notebooks several unpublished accounts which should not remain buried in manuscript. I have woven these accounts into one, in order to eliminate repetition, and present the facts in an orderly and logical way without changing the phraseology or doing violence to the meaning by wresting sentences from their proper connection, with the following result:

FROM THE MANUSCRIPT OF DENIS GALE

"Sites for nest—upon a rocky ledge over deep and lively water, behind a waterfall, under a bridge supported by crossbeams. Sometimes a rock in mid-stream is selected for a site. A pair of these birds have their nest behind Boulder Falls, in a kind of a 'Cave of the Winds,' having to fly in and out through a very wetting, dense spray. The same locality is chosen for nesting year after year unless some physical change renders it unfit.

"However sly and shy this bird may be, if looking for its nest or in its neighborhood, when the bird is satisfied that you have discovered it, all shyness and slyness ends, for then a more confiding, fearless little fellow is not to be met with, going in and out of the nest when you have your hands upon it and with plaintive appeal both in speech (almost) and actions seeks to gain your sympathy and implores your forbearance. Robbed of her treasures, with the joint labor of her mate another nest is made, generally on the same site, and in three weeks she sits covering a second clutch of eggs, and that taken, a third will engage her cares. This fruitful industry no doubt is often exercised independent of the interference of man, from the fact of the sudden rise of streams, when from their situations many nests must be swept away. I do not believe she raises two broods in one season. While most exercised and while watching as it is searching for food in the creek bed, it courtesies continually, and at each courtesy gives a little sharp *twit*, keeping time to every fourth or fifth *twit* by a sudden working of the eyelid, causing the eye to sparkle brilliantly with the light. The nest is seldom betrayed by the bird itself, unless when the young are hatched. Then the journeys to and from the nest, with food, are easily noted. Previous to having hatched the young, the bird will drop from the opening in the nest like a stone into the fierce, rushing waters, and under the surface, allowing itself to be carried quite a distance before taking flight, its exit unperceived even when looking at the spot. Its aquatic feats are remarkable, going into and against the strongest current with perfect ease, and, like a fish, seeming not to touch the water, coming out of it perfectly dry, without a shake or flutter, to swim, sink or dive and even walk or run under water in search of the food it loves to hunt for. In all clear and unpolluted streams running from the melting snowbanks near the mountain peaks it is equally proficient, nor in flight is it wanting in grace or power, darting down a stream with the rapidity of a flash and again flying from the water up to and about its nest-site, when in danger, with the ease and grace of a Hummingbird and noiselessly as an Owl.

This bird with its aquatic agility and other characteristics offers a subject for your notebook of much interest and instruction. Our little friend is no mean songster, either, in early spring. On sunshiny mornings in March and April, when the noisy creeks are less obtrusive, his beautiful, clear, liquid notes are



DIPPER AT ENTRANCE TO NEST

Photographed by J. Rowley, in Monterey county, California

heard with rapture. Singularly sweet and enchanting is this early choral of the vernal year.

"Below Jimtown, on the creek, about half a mile is a ledge of rock twenty feet high overhanging the creek. In a crevice of this ledge about three feet above the running water, a pair of these interesting little birds construct their nest year after year. On May 20 they have their complement of eggs, four or five in number, pure white, pointed at one end and blunt at the other—in this case like the eggs of the sandpiper. Other sets do not discover this peculiarity. The season for having their eggs differs also according to locality. The nest proper is enclosed in an outside covering not at all void of interest. Set upon a flat, even base, it is oven-shaped, a little longer than broad. The nests of this

bird differ in shape to suit the cavities in which they are placed, but the front is always oven-shaped. The one before me partakes of the shape of the crevice in which it was placed and measures exteriorly seven inches high, eight inches long and seven inches broad. The outside covering is about one and one-fourth inches thick above the rim of the inside nest and about two inches thick below the rim and beneath the nest. This covering is composed chiefly of moss, with some decayed leaves and other rubbish, evidently taken from the water, with bark and grass fiber securing it together, and is always dense, dank and wet from the spray of the dashing water. The entrance is a small aperture, about one and one-half inches in diameter, placed about four inches from the bottom and cleverly hidden by the ragged material of the outer construction hanging over it. The direction of entrance by the bird is upward and its exit downward, as with the Cliff Swallow. The nest proper, concealed by the outer structure and about two inches from the outside edge thereof, is a beautiful structure, a perfect circle, saucer-shaped, about an inch and a half deep and three and one-half inches wide inside the cup. This is composed of a peculiar, non-absorbent, coarse, wiry grass, lined with a few willow leaves, flat and intact, all perfectly dry. All materials being used wet, after they are worked into position and molded by the bird's body being twirled around, the nest proper remains a fixture. This nest-wall of grasses is about one inch thick. The nest inside in shape and material seems always to be the same. The material entering into the construction of the covering is chosen to match the site it is intended to occupy. Moss is sometimes ignored, and decayed and other debris and rubbish substituted to keep the outside in harmony with its surroundings. The whole structure in place is scarcely distinguishable from the surroundings, all being of the same color and having the appearance of a bunch of debris placed there by high water—nothing new-looking about it. It is very compact and strong, so little damaged as a rule by a season's occupation and the wear and tear of the winter's storms that very little repair is needed for a second year's occupancy. Decay of the materials after a time causes the dome to sink down, thereby rendering it inconvenient if not entirely useless. Then it is pulled down and a new one built on the same site. I have known of a pair of the birds, no doubt the same pair, building in the period of eight years several nests as occasion required in the same niche.

"May 11, 1893. Both birds at work on the nest, probably five days' work done. In shape like a horseshoe, open end back by an upright rock ledge.

"May 19, 1893. Nest noted on the eleventh instant, in a period of two weeks very little done on it, not more than two fair days' work as I saw the female working this morning for an hour while the sun was bright and warm. In every minute or two she brought material and incorporated it into the walls of the nest dome in the most ingenious manner, by forcing, with much exertion of her bill, the fresh wet material into the interstices in the already constructed and partially dry walls, from the inside, as a shoemaker uses his awl, picking

up any small portions from the bare floor that may have been broken or detached, and in the manner as described caulking it into any little space offering, working from the bottom up, always below the top rim, upon which nothing is laid after the walls are raised to a level with the floor of the nest proper and the threshold of the opening. The walls are then raised on all sides by forcing the building material into the wall from below in such a way as to act as a wedge. The mouthful of material is pushed awl-like into the wall, raising its upper edge, until its proper place is attained and it is released from the mandible. Then the ends and loose parts are tucked in in like manner, not as a pellet,



DIPPER'S NEST WITH YOUNG

Photographed by H. W. Nash, at Sweetwater lake, Colo., July 20, 1897

but rather suggesting a plug resembling a spider. The sprays and fibers on the outside are allowed to lie loose, plush-like, to lead the water from the dome roof as from a hay-cock. As this work on the walls dries the insertion of other plugs with their outrigging, so to speak, knits the whole densely. These insertions necessarily act forcibly on all sides, the limit of the little worker's strength, fully sufficient for the work in hand, seeming to be used. I noticed that the part of the wall she was working upon was about three and one-third inches high, and while she was working in the material about one and one-half or two inches from the floor (which was on an incline of one and one-half inches in seven inches, the lowest part being in front and to one side, upon which side she was

working), after delivering home her quota of material she would take a turn at wedging in the bottom caulking where the material rested on the rock floor. Her object I understood to be two-fold, to fasten the foundation well to the rock and at the same time render that part below her insertions as compact and dense as possible, in order that her work should raise the upper part, which from its lesser density was more easily affected or sensible to the wedge. The top edge showed the slightest inclination to arch, which form is obtained by the deft manipulation of the builder. Thus by working from below the lips or edges of the walls from all sides are closed up and the keywedges put in at the last complete the outside covering. I noticed when caulking the nest to the rock while working on the lower side the bird lay flat on the floor, spread her wings for a purchase and seemed to push with all her strength to insure a well-caulked seam. About the same period of time taken to gather the material was taken in its adjustment, with the oft-recurring heavy work at the bottom-seam caulking and a like period for a rest. About every third journey she scratched her cheek or her crown with her foot, sometimes on one side and then on the other, and as often rumbled her feathers, looked somewhat glumpy, possibly fatigued, and yet while appearing thus the constant courtesying was kept up, as often as not while resting on the nest-site, and just before the journey for fresh material she would raise her wings, probably to feel if they were clear of the material composing the upper part of the structure which might be easily disarranged. While observing her, once only did her mate put in an appearance, took a position close to the nest, gave two or three chirps and then a trill like an English Blackbird—a very agreeable musical performance which his mate scarcely seemed to appreciate, being occupied with her plans of construction. She snubbed an advance he was about to offer her and took a position near the nest on the rock ledge, while he fussed around the nest, seemed to do a little caulking and then flew away. It was evident to me that he was not wanted. It also occurred to me that this species is not the exception; that when the female takes upon herself the whole labor of construction she prefers to do so, that her plans may not be interfered with."

The Bird that Nests in the Snow

By SIDNEY S. S. STANSELL, Edmonton, Alberta

THE Canada Jay has almost as many local names as the Flicker. Those who do not know him by the name of Canada Jay, recognize him at once when you call him 'Moose Bird,' 'Camp Robber,' 'Whiskey John,' 'Whiskey Jack,' or 'Lumber Jack.'

When you are traveling through the woods he is almost always your constant companion, and when you light a camp-fire or discharge a gun, he is always



CANADA JAY

Photographed by Sidney S. S. Stansell, April 8, 1907

there, should he be within hearing or seeing distance, chirping contentedly and looking for what he may devour.

I was traveling through the woods one day in early spring and fired a small rifle, the report of which was not very loud, but almost immediately a Jay came and lit on a small tree near by and chirped as though asking for his share of the game. I soon threw him a morsel and he immediately took it and flew away, probably to his nest to feed his mate—a fact which I know he does.

A certain pair of Canada Jays lived all winter long in the immediate vicinity of two small cabins in a clearing. Whenever a crumb or scrap of meat was thrown from either door they would pounce down upon it and devour it at once, hide it in a cavity of some tree, or stow it snugly away between two branches to be eaten later when food became scarce.

These birds became quite tame. I have had them come and take food from my hand; at other times they have entered the cabin through an open window and helped themselves to food placed purposely on the table for them.

About the first of March these birds began to show signs of wanting to nest although the mercury registered more than forty degrees below zero; nevertheless, a nesting-site was chosen in a clump of 'diamond' willows within two hundred yards of one of the cabins, and house-building began. On March 31, one egg was deposited. I visited the nest daily afterwards until April 8, then as no other egg had been laid I proceeded to photograph the bird and her home. The snow around the nesting-site was about three feet deep and shows in the photograph.

At first the bird seemed quite shy, and flew away several times while I was making preparations for the picture. Each time when she returned she would alight on the edge of the nest, look around for a second or two, then place her beak gently on the single egg, as if to make sure it had not been disturbed, all this time uttering a low not unmusical chirp; then quietly settle down on the nest. Once only did her mate return with her, then they both carefully examined the egg, after which they gently and lovingly rubbed their beaks together, then she flew away and she took her place on the nest again.

The nest was situated eight feet from the ground, the lower portion was composed of twigs, the upper very closely woven with grasses, shredded bark and fine twigs. The cup-like interior was neatly and warmly lined with rabbit fur, hair and fine feathers.

Warm this beautiful home is and warm it should be, for nesting as they do, in winter, it would take but a moment's exposure of the very severe winters here to chill the tiny birds to death or freeze the unhatched eggs.

Redpoll Linnets

By LOTTIE ALVORD LACEY, Southport, Conn.

Illustrated by the author

IT has been our custom for years to feed the winter birds. Last winter (1906-7) after the first heavy snowstorm a lunch-table was provided for them. It consisted of a board eight feet long and eighteen inches wide, which was placed a rod or two from the house and spread with millet several times a day. This was done through February and March and we were repaid a hundred fold.

At first the table was patronized almost exclusively by English Sparrows and Tree Sparrows, but others kept arriving daily until our guests numbered at least twenty-five English Sparrows, twelve or fifteen Tree Sparrows, three Song Sparrows and six Juncos. These came regularly, and one day early in March, eight aristocratic little strangers appeared. They resembled Chipping Sparrows, but were of an ashier hue with, upon the top of the head, a patch of crimson glistening like satin in the sunlight. They were immediately looked up and identified as Redpoll Linnets, and it was about these birds that all interest centered from this time on. They made themselves at home from the first.

As soon as the table was spread each day the numerous guests, who had been intently watching and eagerly chirping in the surrounding trees and shrubbery, began to take their places. It was generally an English Sparrow that came first; then, 'the ice being broken', there was a general advance from all sides.

It was interesting to watch the different modes of approach. The English Sparrows hopped from limb to limb, coming nearer by degrees; the Tree Sparrows flew directly to the board; the Song Sparrows always alighted a rod or so away and crept along the ground to the table. But the Linnets were the most graceful; they dropped from their perch above and fluttered down in wavering circles precisely like falling leaves. They moved about the lunch-table with a quiet air of superiority, and the other birds instinctively gave place to them, with the exception of the Tree Sparrows, who were very impudent and belligerent at every meal. As the table filled there was more or less scurrying for choice positions, but the English Sparrows, to our surprise, were models of good breeding. If a Linnet approached a portion of millet appropriated by one of them the English Sparrow very rarely made any objection to sharing, and quite frequently moved away immediately, seeming to say, "Pardon me, I did not know that this was your place at table."

Outside one of the windows, close to the sill and on a level with it, there was a flower-box three feet long and one and one-half feet wide. In this, also, millet was placed each day, and the Linnets found it the same afternoon that they discovered the lunch-table. We heard a great chattering at the window and going to it found five Redpolls conversing vigorously over their feast. As

they were feeding they constantly moved about the box keeping up a pleasing "*Cher, cher, cher, cher, Cher, cher, cher, cher,*" accenting the first syllable quite noticeably.

As they seemed fearless, allowing us to come close to the window to watch them, it occurred to me that perhaps I could induce them to feed from my hand. Accordingly the next morning, wrapping up well and putting on a glove, I seated myself by the open window holding a handful of millet on the sill close by the box. Nearly an hour passed before the Linnets ventured down. They had been moving about a nearby tree closely watching me and presently a venturesome one alighted in the box. Soon five others came, one of which hopped into my hand and ate a hearty meal. I felt fully repaid for the long time spent in waiting.

The next day, about noon, I took my place at the open window again with millet in the box on the window-sill, in my lap and a generous supply in my hand (gloveless this time). In a few seconds the Linnets were flying all about me seeming now to have perfect confidence. One came almost immediately into my hand and held possession, allowing no one else to come there, but another little fellow crept along the window-sill and reaching up helped himself when the first one was not looking. A third one after eating a while on the window-sill hopped into my lap and had his lunch there while fourteen others made a charming sight feeding happily in the box under my hand. They kept up the pretty little conversational "*Cher, cher, cher, cher*" constantly while feeding, the first syllable being accented vigorously and *sharply* if one felt that another was trespassing on his claim.

After this they came several times every day and when a handful of seed was presented they flew into the hand without hesitation and had pitched battles for the privilege of eating there, seeming to appreciate the warm perch and unlimited supply of food. Two flew into the room and as they were fluttering about some plants at a closed window I caught them and brought them to the open window. One was badly frightened but the other seemed to have little fear and did not make haste to leave my hand.



ONE REDPOLL IN THE HAND AND NINE IN
THE BOX BELOW

One morning I heard an unfamiliar song and discovered a flock of Linnets on an arborvitæ near the porch singing a delightful little song something like this:

"Sweet, sweet, sweet,
Such a dee-ahr, such a dear,
Sweet, sweet."

The tone was shrill and sweet quite like that of the Yellow Warbler. Their call note was a questioning "Suee-'eet."



REDPOLLS WAITING FOR LUNCHEON

From a painting by L. A. Lacey

One day when they were feeding in and about my hand, a sudden noise startled the flock and all flew off excepting the one in my hand. He stayed, eating with perfect content as though he knew he was protected. The others soon came fluttering back seeing nothing to fear. Alarms were very frequently given during the days they were with us but the bird standing in my hand almost *invariably* stayed while all the others flew to the surrounding trees to reconnoiter.

The flock steadily increased. They evidently had some method of communicating with other scattered flocks, passing the news along concerning the abundance of food they had found. About a week after the arrival of the first eight there was a snowfall of several inches, and the following morning we counted thirty-five of them. As they were very hungry and the out-of-doors lunch-table was uncomfortably crowded, we spread millet over a table in the room (to the window of which they were accustomed to come) and they literally crowded in, showing no fear although two of us were standing within four or five feet

of the table. There were twenty-seven Linnets and a number of Tree Sparrows feeding at one time. It was a fascinating sight.

Later in the day I took my seat by the window, after having spread millet on the table and in the box. In a few moments the Linnets appeared and soon there were three eating from my hand while the table six inches from me was swarming with them; twenty-seven at least being there at one time. While one was eating in my hand I slowly raised my thumb to encircle him and when it was so high that he could not bite the one who was trying to seize a seed occasionally from the other side of my hand he hopped up on my thumb and down the other side to nip the poacher, then back again to his first position. This was done repeatedly but, finding he was losing time that way he took up a position midway, one foot on my palm and the other stretched up on my thumb so that he could eat on one side and bite the intruder on the other, without the wear and tear of jumping over and back.

Three of these birds had rosy breasts, the color seeming to deepen as the warmer weather came on until two of them had breasts as crimson as their crowns, and these were the only ones, with one exception, that had rosy rumps.

They stayed with us several weeks, the flock diminishing as the snow disappeared and the weather grew warmer and on March 25, four of them, three with rose-tinted breasts, made their parting call. We fully expect to see them again during the coming winter, for their wings are long and strong and what do a few hundred miles longer flight signify to them when there is a certainty of abundance of food at the end of the journey?



YOUNG KINGFISHERS

Photographed by James H. Miller, Lowville, N. Y.

A Bird Friend

By FRANK M. CHAPMAN



A BARRED OWL PORTRAIT
From a drawing by Robert Sims

WE doubtless all have our favorites among the birds, and in most cases, it would probably be found that our especial fondness for a particular species has resulted from some response on its part to our advances. The Chickadee has won a place for itself in the heart of every one who knows it, not through its charm of song or beauty of dress, but through the quaint little personality its familiarity has permitted us to have a glimpse of. The bird actually seems to notice us; we are something more than objects to be afraid of, and a glance from its shining, intelligent eye suggests possibilities of companionship which we grasp at eagerly. The death of a bird with which we have established delightful relations of this kind passes the bounds of abstract bird destruction and becomes a murder which we would gladly avenge.

So I feel, at least, toward the murderers, unfortunately unknown, of the Barred

Owls, which, as long as I can remember, have inhabited a certain woods near my home. Rarely did they fail to answer my call, and even when there was no response I felt assured of their presence, and found pleasure in the mere knowledge of it.

If there had been any real reason for killing them, any crime justifying their death warrant, I should feel their loss less keenly, but they were shot as a test of marksmanship and as wantonly, perhaps even more wantonly, than if I were to shoot at the automobilists whirring by, simply to see if I could hit them.

There is a certain rarely uttered scream of the Barred Owl which raises the hair and stops the heart-beat for a moment of those who, even with a clear conscience, hear it, and if from time to time it could echo in the dreams of the murderer of my Barred Owls, I should feel that in a small measure, at least, he was reaping as he had sowed.

An appeal to sentiment alone will doubtless not win for other Barred Owls that right to live which is the privilege of all law-abiding citizens, but that such a privilege is their due may be gathered from the appended photographic statement of their value to mankind.



Casts or pellets disgorged by the Barred Owl. The skulls and other bones of meadow mice may be plainly seen. A coin has been introduced into the picture to show comparative size



View beneath a tree frequented by a Barred Owl. Showing disgorged casts which contained only the remains of mice

THE FOOD OF THE BARRED OWL
Two photographs made by H. M. Stephens, at Carlisle, Pa.

The Migration of Flycatchers

SECOND PAPER

Compiled by Professor W. W. Cooke, Chiefly from Data
in the Biological Survey

With drawings by LOUIS AGASSIZ FUERTES and BRUCE HORSFALL

COUCH'S KINGBIRD

This is a species of wide distribution in Mexico, but it ranges north in summer barely to the United States, near the mouth of the Rio Grande in southern Texas. It was first seen May 8, 1877 and April 30, 1878; the earliest records for eggs are May 20, 1891, May 16, 1893 and May 13, 1894.

ARKANSAS FLYCATCHER

This is the commonest and best known of the large Flycatchers of the West. It deserts the United States in winter and is found at that season in Mexico and Guatemala.

SPRING MIGRATION

PLACE	No. of years' record	Average date of spring arrival	Earliest date of spring arrival
Kerrville, Tex.	6	April 28	April 24, 1905
Rockport, Tex.			April 18, 1893
Central Kansas	3	May 2	April 24, 1906
Central Nebraska	11	May 5	April 23, 1896
Northern North Dakota	5	May 16	May 12, 1906
Old Wives Creek, Sask.			May 26, 1895
Fort Webster, New Mex.			March 25, 1853
Carlisle, New Mex.			April 8, 1890
Oracea, Ariz.			February 25, 1899
Catalina Mts., Ariz.			March 28, 1885
Yuma, Colo.	3	May 2	April 30, 1905
Cheyenne, Wyo.	2	May 12	May 10, 1889
Rathdrum, Idaho	2	May 10	May 8, 1905
Terry, Mont.	8	May 17	May 8, 1894
Southern California	4	March 18	March 17, 1896
Central California	5	March 23	March 16, 1901
Southern British Columbia	4	April 25	April 22, 1906

The Arkansas Kingbird retires early toward its winter home. Some dates of the last seen are: Okanagon, B. C., August 31, 1905; Chilliwack, B. C., September 2, 1889; Cashmere, Wash., September 22, 1904; Yuma, Colo., September 23, 1904; Lawrence, Kans., October 4, 1906.

CASSIN'S KINGBIRD

This species winters principally in Mexico, but a few go as far south as Guatemala and a still smaller number remain in southern California.

The usual time of migration is indicated by the following dates of the earliest seen: Tucson, Ariz., March 24, 1902; Catalina mountains, Ariz., March 28, 1885; Pueblo, Colo., April 29, 1894; Cheyenne, Wyo., May 9, 1889; Grange-

ville, Idaho, April 28, 1887; Paicines, Calif., March 7, 1899, March 15, 1901. In the fall the last birds were seen at Beulah, Colo., September 5, 1905, and in the Catalina Mountains, Ariz., October 9, 1884.

The Twenty-fifth Annual Congress of the American Ornithologists' Union

THANKS to the efforts of the local Committee, the Twenty-fifth Annual Congress of the American Ornithologists' Union (Philadelphia, December 10-12) will be remembered by those who were fortunate enough to attend it as one of the most successful and enjoyable in the history of the Union.

The plan of having but one hotel as headquarters, the annual dinner, the 'Smoker' and the daily luncheons at the Academy all offered those opportunities for social intercourse which are so important a part of gatherings of this kind, while the program contained papers of much interest.

Charles F. Batchelder, President; E. W. Nelson and Frank M. Chapman, Vice-Presidents; John H. Sage, Secretary; J. Dwight, Jr., Treasurer were all re-elected. Richard C. McGregor, Manila, Philippine islands was elected a Fellow; Dr. Carl H. Hennicke of Germany and Dr. Sergius A. Buturlin, of Russia were elected Corresponding Fellows; Ned Dearborn, Chicago, E. Howard Eaton, Rochester, N. Y., W. L. Finley, Portland, Oregon and O. W. Knight, Bangor, Me., were elected Members. One hundred and twenty-three Associates were elected, some forty more than were elected last year, an indication of the growing interest in bird study.

The next Congress of the Union will be held in Cambridge, Mass., November 17-19, 1908.



CLARKE'S NUTCRACKER

Photographed by Evan Lewis, at Idaho Springs, Colo.

Bird-Lore's Advisory Council

WITH some slight alterations and additions, we reprint below the names and addresses of the ornithologists forming BIRD-LORE'S 'Advisory Council,' which were first published in BIRD-LORE for February, 1900.

To those of our readers who are not familiar with the objects of the Council, we may state that it was formed for the purpose of placing students in direct communication with an authority on the bird-life of the region in which they live, to whom they might appeal for information and advice in the many difficulties which beset the isolated worker.

The success of the plan during the seven years that it has been in operation fully equals our expectations; and from both students and members of the Council we have had very gratifying assurances of the happy results attending our efforts to bring the specialist in touch with those who appreciate the opportunity to avail themselves of his wider experience.

It is requested that all letters of inquiry sent to members of the Council be accompanied by a stamped and addressed envelope for use in replying.

NAMES AND ADDRESSES OF MEMBERS OF THE ADVISORY COUNCIL

UNITED STATES AND TERRITORIES

- ALASKA.—Dr. C. Hart Merriam, Biological Survey, Dept. of Agr., Washington, D. C.
ARIZONA.—Herbert Brown, Tucson, Ariz.
CALIFORNIA.—Charles A. Keeler, Cal. Acad. Sciences, San Francisco, Cal.
CALIFORNIA.—Walter K. Fisher, Palo Alto, Cal.
COLORADO.—Dr. W. H. Bergtold, 1460 Clayton Ave., Denver, Col.
CONNECTICUT.—J. H. Sage, Portland, Conn.
DELAWARE.—C. J. Pennock, Kennett Square, Pa.
DISTRICT OF COLUMBIA.—Dr. C. W. Richmond, U. S. Nat'l Mus., Washington, D. C.
FLORIDA.—Frank M. Chapman, American Museum Natural History, New York City.
FLORIDA, Western.—R. W. Williams, Jr., Tallahassee, Fla.
GEORGIA.—Dr. Eugene Murphy, Augusta, Ga.
ILLINOIS, Northern.—B. T. Gault, Glen Ellyn, Ill.
ILLINOIS, Southern.—Robert Ridgway, U. S. National Museum, Washington, D. C.
INDIANA.—A. W. Butler, State House, Indianapolis, Ind.
INDIAN TERRITORY.—Prof. W. W. Cooke, Biological Survey, Dept. of Agr., Wash-
IOWA.—C. R. Keyes, Mt. Vernon, Ia. [ington, D. C.]
KANSAS.—Prof. F. H. Snow, University of Kansas, Lawrence, Kan.
LOUISIANA.—Prof. George E. Beyer, Tulane University, New Orleans, La.
MAINE.—O. W. Knight, Bangor, Me.
MASSACHUSETTS.—William Brewster, Cambridge, Mass.
MICHIGAN.—Prof. W. B. Barrows, Agricultural College, Mich.
MINNESOTA.—Dr. T. S. Roberts, 1603 Fourth Avenue South, Minneapolis, Minn.
MISSISSIPPI.—Andrew Allison, Ellisville, Miss.
MISSOURI.—O. Widmann, 5105 Morgan St., St. Louis, Mo.
MONTANA.—Prof. J. M. Elrod, University of Montana, Missoula, Mont.
NEBRASKA.—Prof. E. H. Barbour, University of Nebraska, Lincoln, Neb.

- NEVADA.—Dr. A. K. Fisher, Biological Survey, Dept. of Agr., Washington, D. C.
 NEW HAMPSHIRE.—Dr. G. M. Allen, Boston Soc. Nat. Hist., Boston.
 NEW JERSEY, Northern.—Frank M. Chapman, Am. Mus. Nat. History, New York City.
 NEW JERSEY, Southern.—Witmer Stone, Academy Natural Science, Philadelphia, Pa.
 NEW MEXICO.—Dr. A. K. Fisher, Biological Survey, Dept. of Agr., Washington, D. C.
 NEW YORK, Eastern.—Dr. A. K. Fisher, Biological Survey, Dept. of Agr., Washington,
 NEW YORK, Northern.—Egbert Bagg, 191 Genesee Street, Utica, N. Y. [D. C.
 NEW YORK, Western.—E. H. Eaton, Canandaigua, N. Y.
 NEW YORK, Long Island.—William Dutcher, 141 Broadway, New York City.
 NORTH DAKOTA.—Prof. O. G. Libby, University, N. D.
 NORTH CAROLINA.—Prof. T. G. Pearson, Greensboro, N. C.
 OHIO.—Prof. Lynds Jones, Oberlin College, Oberlin, Ohio.
 OKLAHOMA.—Dr. A. K. Fisher, Biological Survey, Dept. of Agr., Washington, D. C.
 OREGON.—A. W. Anthony, 761½ Savier St., Portland, Ore.
 PENNSYLVANIA, Eastern.—Witmer Stone, Acad. Nat. Science, Philadelphia, Pa.
 PENNSYLVANIA, Western.—W. Clyde Todd, Carnegie Museum, Pittsburg, Pa.
 RHODE ISLAND.—C. Abbott Davis, Museum Natural History, Roger Williams Park,
 SOUTH CAROLINA.—Dr. Eugene Murphy, Augusta, Ga. [Providence, R. I.
 TEXAS.—H. P. Attwater, Houston, Tex.
 UTAH.—Prof. Marcus E. Jones, Salt Lake City, Utah.
 VERMONT.—Prof. G. H. Perkins, Burlington, Vt.
 VIRGINIA.—Dr. W. C. Rives, 1723 I Street, Washington, D. C.
 WASHINGTON.—Samuel F. Rathburn, Seattle, Wash.
 WEST VIRGINIA.—Dr. W. C. Rives, 1723 I Street, Washington, D. C.
 WISCONSIN.—H. L. Ward, Public Museum, Milwaukee, Wis.

CANADA

- ALBERTA.—G. F. Dippie, Calgary, Alta.
 BRITISH COLUMBIA, Western.—Francis Kermode, Provincial Museum, Victoria, B. C.
 BRITISH COLUMBIA, Eastern.—Allan Brooks, Okanagan Landing, B. C.
 MANITOBA.—Ernest Thompson Seton, Cos Cob, Conn.
 NEW BRUNSWICK.—Montague Chamberlain, 45 Milk Street, Boston, Mass.
 NOVA SCOTIA.—Harry Piers, Provincial Museum, Halifax, N. S.
 ONTARIO, Eastern.—James H. Fleming, 267 Rusholme Road, Toronto, Ont.
 ONTARIO, Western.—E. W. Saunders, London, Ont.
 QUEBEC.—E. D. Wintle, 189 St. James Street, Montreal, Can.

MEXICO

- E. W. Nelson, Biological Survey, Department of Agriculture, Washington, D. C.

WEST INDIES

- C. B. Cory, Field Museum, Chicago, Ill.

GREAT BRITAIN

- Clinton G. Abbott, 153 West 73d St., New York City, N. Y.

From a Westerner's Standpoint

THE Editor of BIRD-LORE is quite right in saying that the American Ornithologists' Union Committee has in the past shown excellent judgment in the selection of English names for our birds. Such changes as appear desirable have become so through a slightly altered point of view, or through greater familiarity with the birds themselves, rather than any discrediting of previous decisions.

We of the West find ourselves handicapped in a measure by the constant recurrence of the adjective *Western*, but so long as we are in the minority we must make the best of it; and precisely because the vernacular names are more stable than the scientific, we recognize the necessity of making them geographically definitive. All we ask is that they shall be accurate in this regard. In general there should be a freer use of the word 'Pacific' in designating species common to the three sister states, California, Oregon and Washington, unless it can be clearly shown, as in the case of the California Cuckoo, that the bird has its center of abundance in one of them. The 'Oregon' Vesper Sparrow (*Poæetes gramineus affinis*) is just as truly a Washington bird. Moreover, the Western Vesper Sparrow (*P. g. confinis*) probably outnumbers *affinis* two to one in Oregon. Would it not be better, therefore, to call *affinis* the *Pacific* Vesper Sparrow?

We stand in need of an accepted faunal name to designate that homogeneous area which includes eastern Oregon and Washington, Idaho west of the Rockies, and southern British Columbia. Commercially we refer to this region as the 'inland empire'; and there has been talk of a political coalition under the name Lincoln or Lincolnia, but for geographico-zoölogical purposes the word *Columbian* is perhaps the most suitable. It has been applied successfully in the case of the Columbian Sharp-tailed Grouse. It should be extended to such birds as the 'San Diego' Redwing (*Agelaius phæniceus neutralis*) and the 'Dusky' Horned Lark (*Otocoris alpestris merrilli*). The name *Columbian* is also more consistently applicable to the western 'colony' of *Parus atricapillus* than to *Parus hudsonicus columbianus*, as at present.

Of course all distinctive geographical names must tend to fall away in local use. The Western Robin is simply the Robin to us in Washington; the Puget Sound Bush-Tit is the Bush-Tit, etc. We ought perhaps, to give this abbreviating tendency a little larger recognition in our check-list. Or, if we do consider it necessary to repeat the word *American* some thirty-three times in the text, for the sake of distinctness, we should feel free to dispense with it in common use, as in the columns of BIRD-LORE; and we ought not to allow ourselves to be cheated out of the use of such fitting titles as Widgeon or Peregrine Falcon in the mere effort to be different. 'Baldpate' is simply a book name for the Widgeon, in the West, at least; while 'Duck Hawk' degrades our noblest *Falcon*.

Personally, I think the custom of naming our Warblers after their favorite

trees a very pretty one, and I should dislike to see changes made, save for the gravest reasons.

As the most impossible name (either to accept or alter) I submit the 'Louisiana Water Thrush.' It is inconsistent and misleading, but what are we going to do about it? Here are a few attempts: Glade-sprite, Glade-thrush, Glade-water-thrush, Glade Accentor, Dingle-thrush, Dingle-warbler, Dingle-witch, Cock-o-the-run, Water-fay, Dell Nixie, Alleghany Water-thrush.

A few specific suggestions follow: Change

'Northwest Coast' to *Fannin's* Heron.

'Partridge' to *Quail* in genus *Oreortyx* and *Lophortyx*.

'Duck Hawk' to *American Peregrine Falcon*.

'California' to *Pacific* Pygmy Owl.

'Northern Red-breasted' to *Northwest* Sapsucker.

'Arkansas' to *Western* Kingbird.

'Green-crested' to *Acadian* Flycatcher. (Acadian, like Arcadian, through poetical use, no longer recalls a place but a condition; and its use cannot possibly be misleading.)

'Streaked' to *Pacific* Horned Lark.

'Dusky' to *Columbian* Horned Lark.

'American' to *Mexican* Raven.

'San Diego' to *Columbian* Redwing.

'California' to *Pacific* Purple Finch.

'Oregon' to *Pacific* Vesper Sparrow.

'Louisiana' to *Crimson-headed* Tanager.

'Macgillivray's' to *Tolmie's* Warbler.

'Long-tailed' to *Western* Chat.

'American Dipper' to *American Water Ousel*.

'California' to *Sierra* Creeper.

Seattle, Dec. 28, 1907.

W. LEON DAWSON

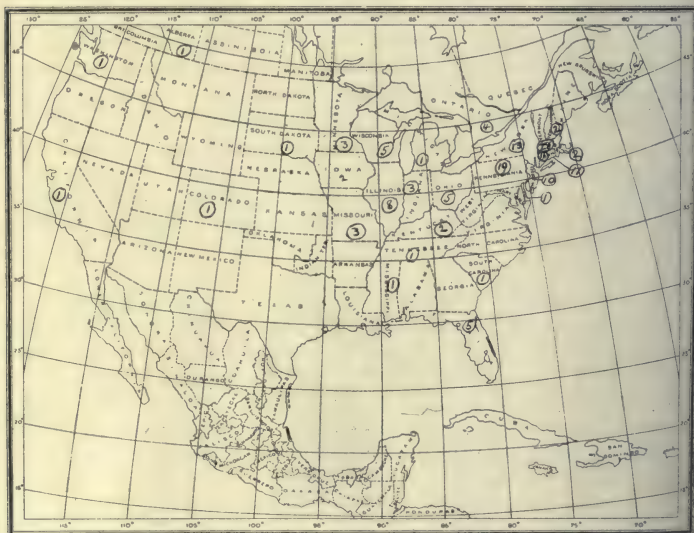


The Eighth Christmas Bird Census

BIRD students are not easily influenced by weather conditions, but birds are, and one might think that as the weather of Christmas week was exceptionally favorable for birds and for the recording of them, the returns for BIRD-LORE's Eighth Census would be of exceptional interest. It is true, a greater number of observers were heard from than on any previous occasion, but from most quarters comes the report "very few birds this winter." Such true northern birds as Crossbills, Redpolls, Pine Grosbeaks and the Shrike are almost wholly absent, while the commoner winter birds are said to be present in smaller numbers than usual.

The Censuses, however, are made to record the results obtained and one containing a small number of birds or none at all, is just as important as the one with forty or more species, provided that it truly represents existing conditions. It is data of the kind we are accumulating which will permit us to say with some definiteness just how abundant or scarce winter birds are, for comparative statements of this kind are of value only when they are based on actual records.

We regret to say that a number of Censuses were received too late for insertion, while the demands the Census makes on BIRD-LORE's space has prevented



MAP SHOWING NUMBER AND DISTRIBUTION OF CHRISTMAS
BIRD CENSUSES

us from accepting more than one Census by the same person from the same locality.

Ottawa, Ontario.—Dec. 27; 1 to 4.30 P.M. Cloudy and damp; foot of snow on ground; wind south, light; temp., 40°. Downy Woodpecker, 1; Crow, 1; Blue Jay, 2; White-breasted Nuthatch, 3; Chickadee, 6. Total, 5 species, 13 individuals. Snowflakes and a Meadowlark were seen a few days ago.—G. E. HARTWICK.

Reaboro, Ontario.—Dec. 26; 2 to 4 P.M. About thirteen inches of snow; temp., about 30°; wind west, light. Ruffed Grouse, 2; Hairy Woodpecker, 2; White-breasted Nuthatch, 1; Chickadee, 4. Total, 4 species, 9 individuals. A Screech Owl was seen on Christmas. The Downy Woodpecker, Blue Jay and Snowflake are all here this winter.—E. WELLINGTON CALVERT.

Orangeville, Ontario.—Dec. 19; 7.50 A.M. to 5.05 P.M. Snowing most of day; about fifteen inches of snow; wind west, very strong; temp., 22°. American Goshawk, 1; Downy Woodpecker, 5; Brown Creeper, 1; White-breasted Nuthatch, 4; Chickadee, 18; Golden-crowned Kinglet, 2; Total, 6 species, 31 individuals.—ALVIN J. SCOTT and E. W. CALVERT.

Millbrook, Ontario.—Dec. 25; 9 A.M. to 1.30 P.M. Snowing, a foot of snow on ground; wind south; temp., 30°. Ruffed Grouse, 2; Blue Jays, 5; Chickadees, 16; White-bellied Nuthatch, 2. Total, 4 species, 25 individuals.—SAM. HUNTER.

Wilton, N. H.—Dec. 25; 9 to 11 A.M. and 2.30 to 4.30 P.M. Fair in A.M.; cloudy in P.M.; snow four inches with crust; light, southeast wind; temp., 38° to 40°. Downy Woodpecker, 1; Blue Jay, 5; Tree Sparrow, 3; White-breasted Nuthatch, 3; Red-breasted Nuthatch, 2; Chickadee, 15. Total, 6 species, 29 individuals. A very decided scarcity of all kinds of birds has been noticed in this vicinity since last summer.—JAMES A. WING and GEORGE G. BLANCHARD.

Cornish, N. H.—Dec. 25; 9 to 11.25 A.M.; 3.40 to 4.45 P.M. Sunshine in A.M.; ground covered with several inches of snow; light breeze; temp., 34°. Hairy Woodpecker, 2; Downy Woodpecker, 1; Chickadee, 24; White-breasted Nuthatch, 5. Total, 4 species, 32 individuals.—ETHEL R. BARTON.

Fitchburg, Mass.—Dec. 28; 10.30 A.M. to 1.30 P.M. Clear, four to six inches ice and snow; occasional bare ground; wind west, light; temp., 34°. Ruffed Grouse, 1; Golden-crested Kinglet, 8; Chickadee, 20. Total, 3 species, 29 individuals.—ALVIN G. WHITNEY, F. N. DILLON and G. F. HABBARD.

Swampscott Shore and Marblehead Neck, Mass.—Dec. 26; 9 A.M. to 3 P.M. Fair; wind west, fresh; ground bare; temp., 41° to 45°. Holboell's Grebe, 3; Horned Grebe, 11; Loon, 4; Red-throated Loon, 1; Black Guillemot, 4; Great Black-backed Gull, 1; Herring Gull, 44; Red-breasted Merganser, 25; American Golden-eye, 43; Bufflehead, 1; Old Squaw, 17; White-winged Scoter, 1; Surf Scoter, 5; Northern Flicker, 7; American Crow, 2; Snowflake, 2; Tree Sparrow, 1; Myrtle Warbler, 1; Chickadee, 11. Total, 19 species, 184 individuals.—GORDON B. WELLMAN and HORACE W. WRIGHT.

Ipswich, Mass.—Dec. 25; 11 A.M. to 12 M. Clear, ground bare; temp., 50°. Herring Gull, 80; Crow, 16; Sparrow, 3; Flicker, 1. Total, 4 species, 100 individuals.—JESSE H. WADE and FRANCIS C. WADE.

Ipswich, Mass.—Castle Hill to Big Dune, return through the Dunes. Dec. 21; 10.30 A.M. to 2.30 P.M. Clear; snow on ground, heavy in Dunes; wind west, light; temp., 40°. Loon, 2; Kittiwake, 45; Great Black-backed Gull, 4; Herring Gull, 86; Red-breasted Merganser, 400; American Golden-eye, 77; Surf Scoter, 8; Horned Lark, 19; Crow, 154; Snowflake, 105; Lapland Longspur, 2; Ipswich Sparrow, 1; Tree Sparrow, 65; Junco, 1; Myrtle Warbler, 33; Chickadee, 20. Total, 16 species, 1,022 individuals.—EDMUND and LIDIAN E. BRIDGE.

Nahant, Mass.—Dec. 26; 11.30 A.M. to 2 P.M. Clear; ground bare; wind west,

light; temp., 42°. Loon, 1; Herring Gull, 200; Leach Petrel, 1 (dead on beach); Bufflehead, 14; Old Squaw, 20; White-winged Scoter, 6; Horned Lark, 18; Crow, 3. Total, 8 species, 263 individuals.—ELIZABETH D. BOARDMAN and LIDIAN E. BRIDGE.

Nahant, Mass., Eastern Point to Lynn.—Dec. 20; 9.30 A.M. to 12.30 P.M. Clear; snow on ground; wind west, light; temp., 22°. Brunnich's Murre, 1; Great Black-backed Gull, 3; Herring Gull, 250; Red-breasted Merganser, 4; Scaup Duck, 6; American Golden-eye, 30; Bufflehead, 16; Old Squaw, 22; White-winged Scoter, 1; Sparrow Hawk, 1; Downy Woodpecker, 1; Horned Lark, 13; Crow, 20; Song Sparrow, 2; Chickadee, 2. Total, 15 species, 372 individuals.—LIDIAN E. BRIDGE.

West Medford, Mass., through Middlesex Fells to Wyoming.—Dec. 22; 8.30 A.M. to 11.30 A.M. Clear; snow on ground; wind west, light; temp., 32°. Herring Gull, 1; American Merganser, 10; Mallard, 1; Red-legged Black Duck, 200; Pintail, 1; Crow, 8; Blue Jay, 1; Pine Siskin, 2; Tree Sparrow, 4; Brown Creeper, 7; White-breasted Nuthatch, 1; Chickadee, 4. Total, 12 species, 240 individuals. (December 25, in the same field, Northern Shrike, 1; Mockingbird, 1.—EDMUND and LIDIAN E. BRIDGE.

Squantum, Mass.—Dec. 25; 12 M. to 2 P.M. Clear; ground bare; west wind, strong; temp., 34°. Herring Gull, 100; American Merganser, 15; Scaup Duck, 30; American Golden-eye, 5; Downy Woodpecker, 3; Flicker, 1; Crow, 50; Goldfinch, 5; Red-breasted Nuthatch, 1; Chickadee, 12. Total, 10 species, 222 individuals.—BARRON BRAINERD.

Brookline, Fenway, Mass.—Dec. 27; 12 M. to 12.30 P.M. Clear; ground bare; west wind, light; temp., 40°. Herring Gull, 3; Sparrow Hawk, 1; Flicker, 1; Crow, 8; Goldfinch, 1; Chickadee, 6; Golden-crowned Kinglet, 3. Total, 7 species, 23 individuals.—BARRON BRAINERD.

Franklin Park, Arnold Arboretum, Boston Parkway and Charles River.—Dec. 21; 9.30 A.M. to 1 P.M. Clear; four inches of snow on ground; temp., 38°. Herring Gull, 125; Red-legged Black Duck, 15; American Golden-eye, 20; American Coot, 5; Sparrow Hawk, 1; Northern Flicker, 10; Blue Jay, 4; Crow, 7; American Goldfinch, 2; White-throated Sparrow, 2; Trees Sparrow, 1; Song Sparrow, 2; Brown Creeper, 2; White-breasted Nuthatch, 2; Golden-crowned Kinglet, 7; Chickadee, 19. Total, 16 species, 224 individuals.—JAMES L. PETERS.

Franklin Park, Morton Meadows (8 to 9.15 A.M.); Arnold Arboretum, Allandale Woods, Jamaica Pond.—Dec 22; 9.45 A.M. to 1.20 P.M. Four inches of snow; wind southwest, light; temp., 40°. Red-legged Black Duck, 37; American Coot, 2; Bob-white, 8; Ring-necked Pheasant, 4; Sharp-shinned Hawk, 1; Northern Flicker, 10; Blue Jay, 9; Crow, 20; Bronzed Grackle, 1; American Goldfinch, 7; Tree Sparrow, 6; Junco, 2; Song Sparrow, 3; Brown Creeper, 1; Golden-crowned Kinglet, 10; Chickadee, 14. Total, 16 species, 133 individuals.—JAMES L. PETERS.

Marblehead, Swampscott, Nahant, Mass.—Dec. 24; 9.30 A.M. to 4.15 P.M. Clear; ground bare; wind light, temp., 45°. Holboell's Grebe, 1; Horned Grebe, 2; Loon, 1; Black Guillemot, 3; Black-backed Gull, 3; Herring Gull, 400; Red-breasted Merganser, 1; Greater Scaup, 15; American Golden-eye, 10; Bufflehead, 31; Old Squaw, 16; White-winged Scoter, 14; Northern Flicker, 1; Horned Lark, 14; Crow, 1; Song Sparrow, 3; Golden-crowned Kinglet, 3; Chickadee, 8; Robin, 1; Total, 19 species, 522 individuals.—NORFOLK BIRD CLUB.

Squantum, (9.45 A.M. to 12 M.); Middlesex Fells.—Dec. 26; 2 to 4.30 P.M. Clear; ground bare; patches of snow in woods; wind northwest, light; temp., 40°. Herring Gull, 278; American Merganser, 61; Red-breasted Merganser, 13; Red-legged Black Duck, 71; Greater Scaup, 50; American Golden-eye, 1; Old Squaw, 33; White-winged Scoter, 1; 'Pigeon' Hawk, 1; Crow 59; Song Sparrow, 1; Brown Creeper, 2. Total, 12 species, 571 individuals.—JAMES L. PETERS, R. M. MARBLE and J. T. COOLIDGE, 3rd.

Charles River, Boston Fens, Jamaica Pond, Mass.—Dec. 22; clear; wind west; four inches snow; temp., 40°. Black-backed Gull, 1; Herring Gull, 450; Red-legged Black

Duck, 68; American Golden-eye, 38; American Coot, 2; Red-tailed Hawk, 1; Flicker, 3; Blue Jay, 4; Crow, 9; Goldfinch, 1; Song Sparrow, 4; Junco, 1; Brown Creeper, 1; Chickadee, 3. Total, 14 species, 586 individuals.—J. KITTREDGE and R. M. MARBLE.

Belmont, Mass.—Dec. 25; 11 A.M. to 12.30 P.M. Clear; light west breeze; patches of snow on the ground; temp., 40°. Red-shouldered Hawk, 1; Crow, 1; Downy Woodpecker, 2; Blue Jay, 4; heard a flock of Chickadees; Golden-crowned Kinglet, 8. Total, 6 species, over 16 individuals.—SAMUEL DOWSE ROBBINS and CHANDLER ROBBINS HUNT.

Belmont, Waverley, Waltham and Lexington (Waverley Oaks Reservation and Rocked Meadow), Mass.—Dec. 26; 10 A.M. to 12.30 P.M. Clear; light west breeze; patches of snow on the ground; temp., about 40°. Hairy Woodpecker, 1; Downy Woodpecker, 1; Northern Flicker, 1; Crow, 4; Tree Sparrow, 8; Chickadee, 12. Total, 6 species, 26 individuals.—SAMUEL DOWSE ROBBINS.

Belmont and Arlington Heights, Mass.—Dec. 27; 9.45 A.M. to 12.30 P.M. Clear; light south breeze; patches of snow on the ground; temp., 38° to 50°. Crow, 6; Downy Woodpecker, 2; Goldfinch, 1; Chickadee, 14; Golden-crowned Kinglet, 10, besides a flock heard. Total, 5 species, over 33 individuals.—SAMUEL D. ROBBINS.

Arlington Heights and Belmont, Mass.—Dec. 28; 9 A.M. to 1.30 P.M. Fair; wind southwest, fresh; ground bare; temp., 45° to 56°. Sharp-shinned Hawk, 1; Northern Flicker, 3; American Crow, 10; Tree Sparrow, 1; Junco, 2; Northern Shrike, 1; Brown Creeper, 1; Chickadee, 17; Golden-crowned Kinglet, 13. Total, 9 species, 49 individuals.—GORDON B. WELLMAN and HORACE W. WRIGHT.

Boston, Mass. (The Arnold Arboretum, Olmsted and Riverway Parks, the Fens, and Charles River, from the Harvard Bridge).—Dec. 23; 9 to 10.30 A.M. Cloudy, followed by copious rain; wind southeast, light; three inches of snow on the ground; temp., 42° to 54°. Dec. 24; 9.45 A.M. to 2.30 P.M. Fair; wind west, fresh; ground bare; temp., 45° to 47°. Great Black-backed Gull, 2; Herring Gull, 135; Black Duck and Red-legged Black Duck, 64; American Golden-eye, 40; American Coot, 2; Ruffed Grouse, 1; Downy Woodpecker, 1; Northern Flicker, 19; Blue Jay, 20; American Crow, 31; American Goldfinch, 2; White-throated Sparrow, 3; Tree Sparrow, 15; Junco, 6; Song Sparrow, 3; White-breasted Nuthatch, 1; Chickadee, 18; Golden-crowned Kinglet, 18. Total, 19 species, 381 individuals.—HORACE W. WRIGHT.

Cambridge, Mass. (Fresh Pond Reservation and Pout Pond Swamp).—Dec. 25; 10 A.M. to 12.30 P.M. Fair; wind southwest, light; ground bare; temp., 34° to 44°. Great Black-backed Gull, 3; Herring Gull, 650; American Merganser, 25; Black Duck, and Red-legged Black Duck, 48; American Coot, 1; Ring-necked Pheasant, 1; American Sparrow Hawk, 2; Downy Woodpecker, 1; Northern Flicker, 5; Blue Jay, 1; American Crow, 6; Red-winged Blackbird, 1; American Goldfinch, 14; Tree Sparrow, 2; Song Sparrow, 6; Brown Creeper, 1; Chickadee, 5. Total, 18 species, 772 individuals.—HORACE W. WRIGHT.

Arnold Arboretum, Jamaica Pond, The Fenway, Charles River Basin.—Dec. 28; 10.30 A.M. to 1 P.M. Weather fine; ground bare; wind southwest; temp., 50°. Great Black-backed Gull, 2; Herring Gull, 100; Black Duck, 50; Golden-eye 10; American Coot, 3; Flicker, 3; Crow, 50; Blue Jay, 10; Red-poll, 8; Goldfinch, 2; White-throated Sparrow, 1; Northern Shrike, 2; Brown Creeper, 12; White-breasted Nuthatch, 6; Chickadee, 50; Golden-crowned Kinglet, 20; Total, 16 species, 329 individuals.—DAN ABERCROMBIE, BARRON BRAINERD and JOHN B. BRAINERD.

Needham, Mass.—Dec. 21; 8 A.M. to 1.30 P.M. Clear; ground covered with snow; wind west, light; temp., 31°. Downy Woodpecker, 2; Crow, 8; Goldfinch, 19; Tree Sparrow, 26; Junco, 7; Brown Creeper, 2; White-breasted Nuthatch, 1; Chickadee, 29; Golden-crowned Kinglet, 8. Total, 9 species, 102 individuals.—CHARLES E. HEIL.

West Roxbury, Mass.—Dec. 24; 9 A.M. to 12 M. Fair, becoming cloudy; ground

partly covered with snow; wind west, strong; temp., 44°. Downy Woodpecker, 1; Flicker, 4; Blue Jay, 2; Crow, 19; Brown Creeper, 3; White-breasted Nuthatch, 3; Chickadee, 11; Golden-crowned Kinglet, 6. Total, 8 species, 49 individuals.—CHARLES E. HEIL.

Beverley, Mass.—Dec. 25; 9.15 A.M. to 12.30 P.M. Fair; ground bare; temp., 30° to 40°. Great Black-backed Gull, 12; American Herring Gull, (estimated) 125; American Golden-eye, 1; Downy Woodpecker, 1; Crow, 3; Purple Finch, 1; Goldfinch, 13; Tree Sparrow, 12; Chickadee, 8; Golden-crowned Kinglet, 2. Total, 10 species, 178 individuals.—FRANK A. BROWN and C. EMERSON BROWN.

Taunton, Mass.—Dec. 22; 9 A.M. to 1.30 P.M. Ground covered with snow; wind southwest, light; temp., 32°. Downy Woodpecker, 1; Flicker, 2; Blue Jay, 4; Goldfinch, 3; Tree Sparrow, 8; Junco, 82; Song Sparrow, 3; Myrtle Warbler, 4; Chickadee, 10; Golden-crowned Kinglet, 2; Bluebird, 1; Total, 11 species, 120 individuals.—EDITH M. HODOMAN.

Taunton (Rocky Woods), Mass.—Dec. 28; 2.20 to 4.10 P.M. Cloudy; ground bare; wind southwest, mild; temp., 60°. Flicker, 2; Crow, 9; Tree Sparrow, 6; Song Sparrow, 1; White-breasted Nuthatch, 2; Chickadee, 4; at home (city)), Downy Woodpecker, 1; Flicker, 1; Brown Creeper, 1; White-breasted Nuthatch, 1; Chickadee, 1. Total, 7 species, 29 individuals.—MRS. M. EMMA CHACE.

Taunton, Mass.—Dec. 25; 9.30 to 11.45 A.M. Clear; ground bare; wind southwest, light; temp., 36°. Downy Woodpecker, 1; Flicker, 6; Blue Jay, 7; Crow, 7; Goldfinch, 1; Tree Sparrow, 22; Junco, 16; Song Sparrow, 1; Myrtle Warbler, 4; Chickadee, 13. Total, 10 species, 78 individuals.—LUCY B. BLISS.

Glocester, R. I.—Dec. 25; 8 A.M. to 12 M. Clear; ground partly bare; wind west, light; temp., 25°. Downy Woodpecker, 1; Chickadee, 4. Total, 2 species, 5 individuals.—J. IRVING HILL.

Woonsocket, R. I.—Dec. 25; 9.30 to 11.45 A.M. Clear; ground bare except in woods, wind southwest, light; temp., 34° to 42°. Blue Jay, 8; Crow 14; Goldfinch, 25; Tree Sparrow, 5; Junco, 20; Total, 5 species, 72 individuals.—CLARENCE M. ARNOLD.

New London, Conn.—Dec. 26; 10.30 A.M. to 12.45 P.M. Clear; ground bare; wind southwest, light; temp., 40°. Loon, 1; Herring Gull, 6; Crow, 1; Tree Sparrow, 4; Song Sparrow, 6; Myrtle Warbler, 3; Junco, 7; Chickadee, 15; White-breasted Nuthatch, 2; Brown Creeper, 1; Total, 10 species, 46 individuals.—FRANCES M. GRAVES.

New Haven, Conn.—Dec. 24; 8.30 to 11 A.M.; 2.45 to 4.30 P.M. Clear; ground partly snow-covered; wind west, brisk; temp., 42° to 48°. Loon, 3; Great Black-backed Gull, 1; Herring Gull, 75; Old Squaw, 3; White-winged Scoter, 1; Ducks, species about 250; Red-shouldered Hawk, 1; Downy Woodpecker, 3; Blue Jay, 3; Crow, about 30; Starling, 25; Purple Finch, 1; Goldfinch, 4; Tree Sparrow, about 25; Junco, 5; Song Sparrow, 9; Myrtle Warbler, 2; Brown Creeper, 4; White-breasted Nuthatch, 3; Chickadee, 22; Golden-crowned Kinglet, 2. Total, 20 species, 469 individuals.—ALBERT W. HONYWILL, JR.

Hartford Conn.—Dec. 25; 10.45 A.M. to 12.30 P.M. Cloudy; ground snow-covered; wind south, light; temp., 40°. Sparrow Hawk, 1; Downy Woodpecker, 2; Flicker, 1; Blue Jay, 3; Crow, 29; Goldfinch, 2; Tree Sparrow, 2; Brown Creeper, 1; White-breasted Nuthatch, 4; Chickadee, 3. Total, 10 species, 48 individuals.—ALBERT W. HONYWILL, JR.

Momauguin to South End, East Haven, Conn.—Dec. 26; 3.00 to 4.30 P.M. Clear; wind light, west; temp., 44°. Loon, 1; Herring Gull, 31; Red-breasted Merganser, 1; Black Duck, 3; Golden-eye, 14; Old Squaw, 3; White-winged Scoter, 10; Crow, 2; Starling, 30. Total, 9 species, 95 individuals.—A. A. SAUNDERS and D. B. PANGBURN.

Lake Saltonstall, New Haven, Conn.—Dec. 25; 9 A.M. to 1.15 P.M. Clear; ground

nearly bare; wind light, southwest. Herring Gull, 131; Black Duck, 9; Golden-eye, 26; Barred Owl, 1; Downy Woodpecker, 4; Flicker, 1; Blue Jay, 1; Crow, 28; Starling, 16; Tree Sparrow, 27; Field Sparrow, 1; Junco, 12; Song Sparrow, 4; Brown Creeper, 3; Chickadee, 52; Golden-crowned Kinglet, 5; Robin, 2. Total, 17 species, 323 individuals.—A. A. SAUNDERS and CLIFFORD H. PANGBURN.

Westville, Conn.—Dec. 25; 9 A.M. Clear; wind light, southwest; temp., 34°. Downy Woodpecker, 1; White-throated Sparrow, 1; Tree Sparrow, 5; Chickadee, 3. 1.30 to 4 P.M. Red-tailed Hawk, 1; Screech Owl, 1; Downy Woodpecker, 1; Blue Jay, 7; Crow, 4; Starling, 30; Purple Finch, 9; Goldfinch, 7; Tree Sparrow, 3; Junco, 8; Fox Sparrow, 1; Brown Creeper, 1; Chickadee, 12; White-breasted Nuthatch, 5; Red-breasted Nuthatch, 1; Bluebird, 1. Total, 17 species, 75 individuals.—MRS. C. A. DYKEMAN.

New Haven, Conn., along west shore from harbor to Woodmont.—Dec. 25; 9 to 11 A.M. Clear; wind south to southwest; temp., 32°. Herring Gull, 100–200; Old Squaw, 7; White-winged Scoter, 1; Ruddy Duck, (?), 1; Great Blue Heron, 1; Blue Jay, 2; Crow, 27; Starling, 100; Meadowlark, 7; Goldfinch, 3. Total, 10 species, about 300 individuals.—P. L. BUTRICK.

Sand Spit to Colonial Inn Cove, Orange, Conn.—Dec. 24; 9.15 A.M. to 12.30 P.M. Clear; ground nearly bare; wind strong, southwest; temp., 42°. Herring Gull, 393; American Golden-eye, 3; Old Squaw, 12; White-winged Scoter, 1; Horned Lark, 2; Crow, 6; Starling, 10; Tree Sparrow, 1; Song Sparrow, 1; Fox Sparrow, 1; Chickadee, 2. Total, 11 species, 432 individuals.—D. B. PANGBURN, CLIFFORD H. PANGBURN and A. A. SAUNDERS.

Edgewood Park and Mitchell's Hill, New Haven, Conn.—Dec. 25; 9.05 A.M. to 1.10 P.M. Clear till noon; ground nearly bare; wind light, southwest; temp., 30°. Sharp-shinned Hawk, 1; Hairy Woodpecker, 1; Downy Woodpecker, 4; Blue Jay, 10; Crow, 20; Starling, 12; Purple Finch, 8; Goldfinch, 5; Pine Siskin, 2; Tree Sparrow, 18; Field Sparrow, 10; Junco, 3; Song Sparrow, 5; Fox Sparrow, 1; Myrtle Warbler, 1; White-breasted Nuthatch, 7; Chickadee, 42; Golden-crowned Kinglet, 2; Robin, 1; Bluebird, 1; Total, 20 species, 163 individuals.—D. B. PANGBURN.

New Haven, Conn., (Pine Rock).—Dec. 25; 11.15 A.M. to 12.15 P.M. Partly cloudy; ground patched with snow; wind southwest, light; temp., 40°. Downy Woodpecker, 2; Crow, 7; English Starling, 2; Junco, 8; Chickadee, 5. Total, 5 species, 24 individuals.—HAROLD M. FOWLER.

Bristol, Conn.—Dec. 25; 8.30 A.M. to 12 M. Clear; calm, then cloudy; 43°; northwest light breeze at noon; ground covered, old crusty snow nearly bear one's weight; temp., 22°. Sparrow Hawk, 1; Downy Woodpecker, 1; Blue Jay, 5; Crow, 3; Goldfinch, 1; Tree Sparrow, 7; White-breasted Nuthatch, 2; Chickadee, 15. Total, 8 species, 35 individuals.—FRANK BRUEN.

South Norwalk, Conn.—Dec. 25; 8 A.M. to 3 P.M. Weather clear; warm; ground bare, no frost. Herring Gull, 40; Downy Woodpecker, 4; Blue Jay, 11; Crow, 12; Starling, 40; Goldfinch, 2; Purple Finch, 2; White-throated Sparrow, 1; Tree Sparrow, 21; Junco, 2; White-breasted Nuthatch, 4; Chickadee, 26; Brown Creeper, 2; Robin, 1; Bluebird, 3. Total, 15 species, 171 individuals.—WILBUR F. SMITH and REDDINGTON DAYTON.

Fredonia, Chaut. Co., N. Y.—Dec. 25; 2 to 4.30 P.M. sky cloudy; ground bare; moderate east wind; temp., 55°. A tramp of nearly six miles and the only living creatures seen were two English Sparrows down by Willowbrook Golf Club, showing how northern Chautauqua has been cleared of winter birds. I met eight small boys with guns.—MRS. T. C. CHATSEY.

Rochester, N. Y., to Dugway.—Dec. 25; 9.30 A.M. to 12 M. Cloudy; ground covered with snow; wind southeast, light; temp., 32°. Herring Gull, 7; Downy Woodpecker,

1; Crow, 21; Tree Sparrow, 30; Song Sparrow, 4; Swamp Sparrow, 1; White-breasted Nuthatch, 1. Total, 7 species, 65 individuals.—NETTIE SELLINGER PIERCE.

Central Valley, Orange Co., N. Y.—Dec. 25; 9 to 11.30 A.M. Cloudy; wind south, light; considerable snow; temp., 30°. Downy Woodpecker, 1; Blue Jay, 1, others heard; Crow, 6; Tree Sparrow, 1; Shrike, 1; White-breasted Nuthatch, 2; Chickadee, 2. Total, 7 species, 14 individuals.—MARY VAN E. FERGUSON.

Bronxville, N. Y.—Dec. 25; 8 A.M. to 5 P.M. Clear in morning, partly cloudy in afternoon; wind west, light and increasing; temp., 45°. Crow, 1; Starling, 7. Total, 2 species, 8 individuals.—A. B. GURLEY.

Pelham Manor, N. Y.—Dec. 25; 9 A.M. to 1 P.M. Clear; no wind; ground bare; temp., at 7.30, 31°. Herring Gull, 80; Bob-white, 10; Downy Woodpecker, 1; Blue Jay, 2; American Crow, 20; Starling, 1; Junco, 25; Song Sparrow, 2; Brown Creeper, 2; White-breasted Nuthatch, 4; Chickadee, 6; Golden-crowned Kinglet, 5. Total, 12 species, 158 individuals.—ROBERT CRANE.

Central Park, New York City.—Dec. 25; 12.15 to 1.20 P.M. Slightly cloudy; light, southwesterly breeze; temp., 50°. Herring Gull, 2; Downy Woodpecker, 1; Starling, 7; White-throated Sparrow, 3; Junco, 4; Cardinal, 1; Chickadee, 3. Total, 7 species, 21 individuals.—CLARENCE C. ABBOTT.

Central Park, New York City.—Dec. 25; 8.25 to 10.40 A.M. Ramble, 1 to 1.45 P.M., North End. Clear; ground bare; wind west, light; temp., 37° at start. Herring Gull, 300; Downy Woodpecker, 3; Flicker, 1; Starling, 100; Junco, 3; Song Sparrow, 1; Cardinal, 5; Brown Thrasher, 1; White-breasted Nuthatch, 1; Chickadee, 6. Total, 10 species, 421 individuals.—GEORGE E. HIX.

Battery, New York City, to 17 Fathoms (10 miles off Seabright, N. J.) and back.—Dec. 25; 8.25 A.M. to 4.15 P.M. Clear; wind southwest, light; temp., 44° at noon. Loon, 1; Kittiwake, 1; Glaucous Gull, 2; Black-backed Gull, 6; Herring Gull, 10,000; Ring-billed Gull, 2; Bonaparte Gull, 25; Old Squaw, 21. Total, 8 species, about 10,060 individuals.—R. E. STACKPOLE, A. C. REDFIELD and C. H. ROGERS.

Rockaway Park to Point and back, New York City.—Dec. 27; 10.20 A.M. to 4.10 P.M. Partly cloudy; ground bare; wind southwest, brisk; temp., 45° at start, 42° at return. Black-backed Gull, 5; Herring Gull, 300; Ring-billed Gull, 1; Double-crested Cormorant, 1; Old Squaw, 7; Crow, 1; Horned Lark, 20; Snowflake, 75; Tree Sparrow, 1; Myrtle Warbler, 8; American Pipit, 2. Total, 11 species, about 420 individuals.—A. C. REDFIELD and C. H. ROGERS.

College Point to Long Beach, Long Island.—Dec. 29; 7.15 A.M. to 5 P.M. Clear; ground bare; practically no wind; temp., 31° at start, 44° at 4 P.M. Herring Gull, 1,000; Marsh Hawk, 3; Red-shouldered Hawk, 2; Broad-winged Hawk, 1; Sparrow Hawk, Hawk, 2; Downy Woodpecker, 2; Horned Lark, 75; Prairie Horned Lark, 50; Blue Jay, 4; Crow, 50; Starling, 500; Meadowlark, 14; White-throated Sparrow, 2; Tree Sparrow, 50; Junco, 2; Song Sparrow, 10; Chickadee, 4; Hermit Thrush, 1; Robin, 1. Total, 19 species, 1,773 individuals.—CLINTON G. ABBOTT and FRANCIS HARPER.

Mt. Sinai, Long Island, N. Y.—9.30 A.M. until dark. Ground bare; sky somewhat overclouded; moderate west by southwest wind; temp., 45° to 57°. Horned Grebe, 3; Loon, 5; Red-throated Loon, 2; Great Black-backed Gull, 3; Herring Gull, 500; Red-breasted Merganser, 2; Black Duck, 6; Old Squaw, 41; White-winged Scoter, 18; Surf Scoter, 8; Red-shouldered Hawk, 1; Horned Lark, 30; Blue Jay, 4; Crow, 90; Starling, 6; Meadowlark, 1; Goldfinch, 2; Snow Bunting, 25; Tree Sparrow, 6; Junco, 30; Song Sparrow, 2; Winter Wren, 1; Myrtle Warbler, 7; White-breasted Nuthatch, 1; Chickadee, 45. Country visited:—Sound Beach, salt meadows, second-growth deciduous woods, upland fields and red cedar woods. Total, 25 species, 838 individuals.—GERTRUDE A. WASHBURN and ROBERT CUSHMAN MURPHY.

Setauket, Long Island, N. Y.—Dec. 25; All day. Weather fair; wind south. Her-

ring Gull, 300; Old Squaw, 52; Shell Drake, 1; Coot, 79; Horned Lark, 29; Crow, 16; Chickadee, 8. Total, 7 species, 485 individuals.—RUSSEL W. STRONG.

Greenport, L. I.—Dec. 25; 2 to 4.45 P.M. Partly cloudy; light, west wind; Horned Grebe, 4; Loon, 2; Herring Gull, 75; Black Duck, 200; Scaup Duck, 4; Old Squaw, 100; American Scoter, 7; White-winged Scoter, 8; American Golden-eye, 26; Bob-white, 1; Downy Woodpecker, 1; Horned Lark, 50; Meadowlark, 2; Goldfinch, 6; White-throated Sparrow, 3; Tree Sparrow, 1; Song Sparrow, 20; Junco, 2; Myrtle Warbler, 100; Winter Wren, 1; Chickadee, 20; Robin, 10. Total, 23 species, 644 individuals.—K. B. SQUIRES.

Orient Point, Long Island.—Dec. 22; 6.30 A.M. to 5 P.M. Clear; fresh, southwest wind; ground bare, slightly frozen in morning; temp., 30° to 40°. Horned Grebe, 34; Holboell's Grebe, 1; Loon, 28; Red-throated Loon, 4; Kittiwake Gull, 300; Great Black-backed Gull, 5; Herring Gull, 538; Ring-billed Gull, 2; Bonaparte's Gull, 7; Red-breasted Merganser, 18; Black Duck, 3; Redhead, 1; American Scaup Duck, 55; Lesser Scaup Duck, 2; American Golden-eye, 3; Bufflehead, 11; Old Squaw, 595; American Scoter, 7; White-winged Scoter, 51; Surf Scoter, 108; Bob-white, 10; Turkey Vulture, 1; Marsh Hawk, 2; Sharp-shinned Hawk, 1; Cooper's Hawk, 1; Red-shouldered Hawk, 1; Screech Owl, 1; Downy Woodpecker, 6; Flicker, 26; Horned Lark, 500; Prairie Horned Lark, 5; Blue Jay, 3; American Crow, 362; Fish Crow, 2; Starling, 31; Meadowlark, 154, (two singing); Crossbill, 1; Goldfinch, 2; Pine Siskin, 5; Snowflake, 55; Lapland Longspur, 1; Tree Sparrow, 82; Junco, 2; Song Sparrow, 33; Fox Sparrow, 1; Northern Shrike, 1; Myrtle Warbler, 155; Chickadee, 126; Golden-crowned Kinglet, 39; Robin, 8. Total, 50 species, 2,708 individuals. Country visited:—Shores of Long Island Sound, Orient and Gardiner's Bay, hills, orchards, hardwood forests, cedar groves, swamp, salt marshes, ploughed fields and pastures. The Turkey Vulture was captured on the ground in a choking condition. Large bones were wedged firmly in the throat, these were released and the bird offered stale fish which it ate greedily; but evidently the stomach was weak from fasting and the food was immediately disgorged. The following morning the bird was dead.—HARRY, FRANK and ROY LATHAM.

One Hundred and Thirtieth Street Ferry, New York, to Coytesville, South Englewood, Leonia and Palisades Park, N. J.—Dec. 22; 9.45 A.M. to 4.30 P.M. Clear; ground mostly bare; wind southwest, light; temp., 35° at start. Herring Gull, 500; Red-tailed Hawk, 7; Sparrow Hawk, 2; Hairy Woodpecker, 1; Blue Jay, 1; Crow, 7; Starling, 35; Meadowlark, 1; Purple Finch, 1; Tree Sparrow, 10; Junco, 42; Song Sparrow, 3; Winter Wren, 2; Chickadee, several. Total, 14 species, about 620 individuals.—G. E. HIX and C. H. ROGERS.

Bloomfield and Newark, N. J.—Dec. 25; 9 A.M. to 2 P.M. Clear; ground bare; wind southwest, light; temp., 30° to 46°. Herring Gull, 2; Sharp-shinned Hawk, 1; Crow, 3; Starling, 92; White-throated Sparrow, 6; Tree Sparrow, 7; Song Sparrow, 3; Goldfinch, 2. Total, 8 species, 116 individuals.—LOUIS S. KOHLER.

Passaic, N. J.—Dec. 25; 9.30 A.M. to 12 M.; 2 to 4.30 P.M. Clear; ground bare; wind south, light; temp., 36°. Downy Woodpecker, 3; Blue Jay, 7; Crow, 5; Purple Grackle, 200; Starling, 107; Goldfinch, 1; Tree Sparrow, 15; Junco, 12; Song Sparrow, 1; Myrtle Warbler, 6; Brown Creeper, 2; White-breasted Nuthatch, 4; Chickadee, 16. Total, 13 species, 380 individuals.—GILBERT H. TRAFTON and EDWARD UEHLING.

Morristown, N. J.—Dec. 25; 9 to 11 A.M. Fair; ground partly bare, with some patches of snow; wind west, light; temp., 45°. Red-shouldered Hawk, 1; Hairy Woodpecker, 2; Downy Woodpecker, 2; Blue Jay, 13; Crow, 25; Starling, 1; Purple Finch, 4 (1 singing); Goldfinch, 2; Tree Sparrow, 12; Song Sparrow, 2; Junco, 2; Brown Creeper, 1; White-breasted Nuthatch, 4; Chickadee, 19; Golden-crowned Kinglet, 16. Total, 15 species, 106 individuals.—R. C. CASKEY.

Trenton, N. J.—Dec. 25; 10 A.M. to 12 M. Fair; wind southwest; temp., 40°. Hairy Woodpecker, 1; Downy Woodpecker, 2; Blue Jay, 20; Crow, 9; Goldfinch, 10; Tree Sparrow, 2; Junco, 10; Song Sparrow, 4; Cardinal, 3; Brown Creeper, 8; Chickadee, 12; Golden-crowned Kinglet, 20. Total, 12 species, 83 individuals.—W. L. DIX.

Moorestown, N. J.—Dec. 25; 6.37 A.M. to 12.45 P.M. and 2 to 6.15 P.M. Clear; ground bare; wind west, southwest, becoming fresh; temp., 32°. Herring Gull, 5; Red-shouldered Hawk, 1; Hairy Woodpecker, 3; Flicker, 3; Meadowlark, 33; Tree Sparrow, 17; Towhee, 1; Winter Wren, 2; Tufted Titmouse, 5; Turkey Vulture, 7; Sparrow Hawk, 3; Downy Woodpecker, 5; Blue Jay, 19; Goldfinch, 4; Junco, 29; Cardinal, 4; Brown Creeper, 1; Chickadee, 8; Red-tailed Hawk, 3; Screech Owl, 1; Red-headed Woodpecker, 2; Crow, about 500; White-throated Sparrow, 2; Song Sparrow, 16; Carolina Wren, 1; White-breasted Nuthatch, 3. Total, 26 species, about 678 individuals.—WILLIAM B. EVANS.

Newfield, N. J.—Dec. 25; 10 A.M. to 3.30 P.M. Clear; wind south, light at starting out becoming brisk later; ground bare; temp., at start 40° at return, 47°. Crow, 3; Blue Jay, 3; Meadowlark, 1; Tree Sparrow, 10; Junco, 7; Chickadee, 6; Golden-crowned Kinglet, 4. Total, 7 species, 34 individuals.—WM. W. FAIR.

Hackettstown, N. J.—Dec. 25; 8.15 to 11.35 A.M. and 2.20 to 4.50 P.M. Foggy in morning; mostly clear in afternoon; light, southeast wind; temp., 38° at 8.15 A.M. Downy Woodpecker, 1; Flicker, 1; Blue Jay, 2; Crow, 116; Purple Finch, 6; Tree Sparrow, 12; Junco, 2; Brown Creeper, 1; White-breasted Nuthatch, 2; Chickadee, 2; Kingfisher, 1; Total, 11 species, 146 individuals.—MARY PIERSON ALLEN.

Ocean Grove, N. J.—Dec. 27; 9 A.M. to 12 M. Clear; ground bare; wind south, brisk; temp., 45° to 50°. Herring Gull, 20; Downy Woodpecker, 1; Song Sparrow, 2; Junco, 7; Myrtle Warbler, 15. Total, 5 species, 45 individuals.—EMMA VAN GIL-LUWE.

Pensauken Township, Camden County, N. J.—Dec. 25; 10.45 A.M. to 4 P.M. Clear; ground bare; wind southwest, strong; temp., 48°. Herring Gull, 57; Dove, flock of 36; Red-tailed Hawk, 2; Sparrow Hawk, 3; Crow, 400; Fish Crow, 1; White-throated Sparrow, 16; Tree Sparrow, 14; Junco, 8; Song Sparrow, 8; Fox Sparrow, 1; Cardinal, 4; Winter Wren, 1; Tufted Titmouse, 2; Chickadee, 1; Robin, 1; Golden-crowned Kinglet, 4. Total, 17 species, 559 individuals.—RICHARD F. MILLER.

Easton, Pa.—Dec. 25; 7.20 to 11 A.M. To 9.40 cloudy, then clear; wind northwest, light, ground bare; temp., 32° at start, 57° at return. Hairy Woodpecker, 1; Northern Downy Woodpecker, 1; Crow, 5; Purple Finch, (heard); Tree Sparrow, 7; Junco, 27; Song Sparrow (heard); Winter Wren, 1; Chickadee, 2; Golden-crowned Kinglet, 2. Total, 10 species, 46 individuals.—EDWARD J. F. MARX.

Frankford, Philadelphia County, Pa.—Dec. 24; 8.30 A.M. to 4.30 P.M. Clear; ground bare; wind west, strong; temp., 44°. Herring Gull, 12; Sparrow Hawk, 2; Hairy Woodpecker, 1; Flicker, 1; Crow, 13; Fish Crow, 2; White-throated Sparrow, 1; Tree Sparrow, 11; Junco, 30; Song Sparrow, 6; Cardinal, pair; White-breasted Nuthatch, 2; Tufted Titmouse, 1. Total, 13 species, 84 individuals.—RICHARD F. MILLER.

Fairmount Park, Philadelphia, Pa.—Dec. 26; 11 A.M. to 3.45 P.M. Clear; "an April day in December"; ground bare and unfrozen; wind northwest, calm, hardly perceptible; temp., 45°. Herring Gull, 3; American Merganser, 86; Red-breasted Merganser, 10; Greater Scaup Duck, 26; American Golden-eye, 12; Dove, 3; Red-shouldered Hawk, 1; Sparrow Hawk, 1; Downy Woodpecker, 2; Flicker, 1, (calls); Crow, 36; White-throated Sparrow, 2; Tree Sparrow, 1; Junco, 3; Song Sparrow, 5; Fox Sparrow, 1; Cardinal, 7; Winter Wren, 2; Brown Creeper, 1; White-breasted Nuthatch, 7; Chickadee, 11; Golden-crowned Kinglet, 10. Total, 22 species, 220 individuals.—RICHARD F. MILLER.

Chestnut Hill, Pa.—Dec. 25; 9.15 to 11 A.M. Clear; ground bare; wind southeast,

light; temp., 33°. Herring Gull, 1; American Merganser, 5; Sharp-shinned Hawk, 1; Hairy Woodpecker, 1; Crow, 9; Junco, 100; Goldfinch, 5; Tree Sparrow, 3; White-throated Sparrow, 1; Cardinal, 8; Winter Wren, 2; White-breasted Nuthatch. Total, 12 species, 140 individuals.—HELEN M. KRUGER.

Kennett Square, Pa.—Dec. 25; 10.30 A.M. to 12.30 P.M. Wind fresh, southwest; few clouds; temp., 44°. Dove, 1; Turkey Buzzard, 3; Red-tail Hawk, 1; Red-shouldered Hawk, 1; Sparrow Hawk, 1; Flicker, 2; Crow, 21; White-throated Sparrow, 4; Tree Sparrow, 45; Junco, 8; Song Sparrow, 4; Cardinal, 1. Total, 12 species, 92 individuals.—C. J. PENNOCK.

Chestnut Hill, Pa., (along the Cresheim Creek).—2.20 to 5 P.M. Cloudy; ground patched with melting snow; wind west, quite still; temp., 40°. Downy Woodpecker, 1; Crow, 3; Cardinal, 7; Junco, (some in song) 40; White-throated Sparrow, 2; Song Sparrow, 4; Field Sparrow, 1; Tree Sparrow, (in song), 20; Myrtle Warbler, 1; Carolina Wren, 1; Winter Wren, 1; Chickadee, 3. Total, 12 species, 94 individuals.—GEORGE LEAR.

Doylestown, Pa.—12 M. to 2.15 P.M. Clear; ground patched with melting snow; wind southwest, very light; temp., 45°. Hairy Woodpecker, 1; Downy Woodpecker, 2; Blue Jay, 1; Purple Finch, (one in half-song), 4; Junco, 10; White-throated Sparrow, 2; Song Sparrow, 2; Tree Sparrow, 35; Brown Creeper, 2; White-bellied Nuthatch, 2; Tufted Titmouse, 5; Chickadee, (one in song), 3; Golden-crowned Kinglet, 1. Total, 13 species, 70 individuals.—GEORGE LEAR.

Fairmount Park, Philadelphia, Pa.—Dec. 21; 9.15 A.M. to 4.45 P.M. Weather fine; light snow in patches; wind light, changing to moderate northwest; temp., 35° at start, 44° on return. American Merganser, about 100; Red-shouldered Hawk, 1; Sparrow Hawk, 2; Downy Woodpecker, 7; Flicker, 1; American Crow, about 25; Fish Crow, 2; White-throated Sparrow, 10 (singing); Junco, 15; Song Sparrow, 10 (singing); Cardinal, 15; Carolina Wren, 1 (singing); Brown Creeper, 4; White-breasted Nuthatch, 5; Chickadee, 5. Total, 15 species, about 200 individuals.—A. C. REDFIELD and L. S. PEARSON.

Radnor Township, Delaware County, Pa.—Dec. 24; 8.30 A.M. to 5 P.M. Weather fine; ground bare; wind high, northwest; temp., 45° at start, 50° on return. Red-tailed Hawk; Red-shouldered Hawk, 1; Sparrow Hawk, 4; Hairy Woodpecker, 1; Downy Woodpecker, 3; Crow, 108; Purple Finch, 3; Goldfinch, 1; White-throated Sparrow, 1; Tree Sparrow, about 25; Junco, 21; Song Sparrow, 7; Cardinal, 7; Carolina Wren, 1; Winter Wren, 3; Brown Creeper, 3; Chickadee, 3. Total, 17 species, about 190 individuals.—LEONARD S. PEARSON.

Radnor Township, Delaware County, Pa.—Dec. 22; 8.30 A.M. to 4.30 P.M. Clear; ground bare, except for few small patches of snow; wind west, moderate; temp., 32° at start. Red-tailed Hawk, 3; Belted Kingfisher, 1; Downy Woodpecker, 5; Flicker, (heard); Crow, 50; White-throated Sparrow, 2; Tree Sparrow, 60; Junco, 30; Song Sparrow, 4; Cardinal, 4; Carolina Wren, 1; Brown Creeper, 1; White-breasted Nuthatch, 1; Tufted Titmouse, 2 (singing); Chickadee, 16; Bluebird, 1. Total, 16 species, 182 individuals.—ALFRED C. REDFIELD.

West Chester, Pa.—Dec. 25; 9 A.M. to 12.30 P.M. Clear; ground bare; light, southwest wind; temp., about freezing, on return about 40°. Goshawk, 1; Sparrow Hawk, 1; Downy Woodpecker, 1; Crow, 33; Tree Sparrow, 15; Junco, 26; Song Sparrow, 10; Titlark, 1; Chickadee, 9; Golden-crowned Kinglet, 2. Total, 10 species, 99 individuals.—S. C. SCHMUCKER and C. E. EHINGER.

Delaware County, Pa.—Dec. 25; walk of some ten miles through Marple and Haverford Townships; 9.30 A.M. to 3.30 P.M. Clear; ground bare; wind southwest, almost none at start but springing into a good breeze toward noon; temp., 34°. Red-tailed Hawk, 1; Sparrow Hawk, 1; Downy Woodpecker, 6; Crow, 37; Goldfinch, 1;

White-throated Sparrow, 3; Tree Sparrow, 44; Junco, 17; Song Sparrow, 16; Cardinal, 2. Total, 10 species, 128 individuals. Many sunny hillsides and alder thickets were visited but birds were unusually scarce.—B. W. GRIFFITHS and CHRESWELL J. HUNT.

Belleville, Pa.—Dec. 25; 10 to 10.30 A.M. Cloudy; light snow on ground; wind west, light; temp., 40°. Feeding upon suet fastened to a tree and seen from my window were Downy Woodpeckers, 2; Tufted Titmouse, 2; White-breasted Nuthatch, 2. I saw Chickadees and Kinglets feeding there also a few days before.—ANNA J. VALENTINE.

Lititz, Pa. (Upper waters of Hammer Creek, Northern Lancaster County.)—Dec. 22; 10 A.M. to 5 P.M. Clear; ground covered with snow; wind, none; temp., 35°. Turkey Buzzard, 27; Sparrow Hawk, 3; Red-tailed Hawk, 4; Screech Owl, 1; Downy Woodpecker, 3; Crow, 1,100; Junco, 65; Tree Sparrow, 70; Song Sparrow, 6; Cardinal, 9; White-breasted Nuthatch, 3. (The absence of Chickadees and Titmice is remarkable). Total, 13 species, 1,300 individuals.—HERBERT H. BECK.

Berwyn, Pa.—Dec. 25; 9 A.M. to 12.15 P.M. and 1.30 to 3.45 P.M. Clear in the morning, but cloudy in the afternoon; ground bare; wind west at start, southwest at return, light in morning but strong in afternoon; temp., 40°. Hairy Woodpecker, 1; Downy Woodpecker, 1; Crow, 30; Purple Grackle, 1; Junco, 45; Tree Sparrow, 40; Song Sparrow, 2; White-throated Sparrow, 6; Cardinal, 2; Winter Wren, 1; Chickadee, 8; White-breasted Nuthatch, 1. Total, 12 species, 138 individuals.—JOHN B. GILL.

Columbia, Lancaster Co., Pa.—Dec. 25; 8.30 to 11.30 A.M. Clear; fair; temp., 45°. Hairy Woodpecker, 1; Downy Woodpecker, 2; American Crow, 100; Tree Sparrow, 10; Chipping Sparrow, 8; Junco, 23; Song Sparrow, 2. Total, 7 species, 146 individuals.—WM. M. FLANAGAN and WM. ROCHOW.

Springs, Somerset Co., Pa.—Dec. 25; 9.45 A.M. to 12.10 P.M. Clear; ground snow-covered; wind southwest to west; temp., 31° to 42°. Downy Woodpecker, 2; Crow, 6; American Goldfinch, 1; Tree Sparrow, 2; Junco, 6; Song Sparrow, 2; White-breasted Nuthatch, 2; Chickadee, 3; Golden-crowned Kinglet, 3. Total, 9 species, 27 individuals.—ANSEL L. MILLER.

From Paoli to Wayne, Pa., including parts of Willistown and Easttown Townships in Chester County and parts of Newtown and Radnor Townships in Delaware County. —Dec. 28; 8.45 A.M. to 5.30 P.M. Weather fair; ground bare; wind moderate, southwest; temp., 46° at start, 55° on return. Turkey Vulture, 3; Red-tailed Hawk, 2; Red-shouldered Hawk, 1; Hairy Woodpecker, 3; Downy Woodpecker, 2; Crow, about 125; Goldfinch, 10; White-throated Sparrow, 1; Tree Sparrow, about 65; Junco, 7; Song Sparrow, 7; Cardinal, 6; Winter Wren, 1; Brown Creeper, 10; White-breasted Nuthatch, 10; Tufted Titmouse, 6; Chickadee, 15; Golden-crowned Kinglet, 3. Total, 18 species, about 280 individuals.—JOHN S. PATTON and LEONARD S. PEARSON.

Allegheny, Pa., West View.—Dec. 21; 9 A.M. to 1 P.M. Cloudy; wind northwest to southwest, variable; about three inches of snow; temp., 30° to 36°. Sparrow Hawk, 1; Screech Owl, 1; Hairy Woodpecker, 2; Northern Downy Woodpecker, 7; Crow, (heard calling); Goldfinch, 1; Tree Sparrow, 35; Chipping Sparrow, 1; Junco, 30; Song Sparrow, 8 (singing); Cardinal, 2 (singing); Carolina Wren, 2; Winter Wren, 4; Brown Creeper, 11; White-breasted Nuthatch, 15; Tufted Titmouse, 12; Chickadee, 15; Golden-crowned Kinglet, 6. Total, 18 species, 153 individuals.—WM. G. PITCAIRN.

Pittsburg, Pa., (McKinley Park).—Dec. 25; 9 A.M. to 12 M. Cloudy; ground bare, soft; wind southwest, strong; temp., 38°. Downy Woodpecker, 1; Song Sparrow, 1; Carolina Wren, 1. Total, 3 species, 3 individuals.—MILO H. MILLER.

Lewes, Del.—Dec. 28; 7.30 A.M. to 5 P.M. Weather fair; wind southwest; temp., 50° to 60°. Herring Gull, 8; Hooded Merganser, 4; Black Duck, 130; White-winged Scoter, 5; Turkey Buzzard, 89; Marsh Hawk, 1; Sharp-shinned Hawk, 1; Sparrow

Hawk, 3; Downy Woodpecker, 2; Flicker, 3; Crow, 406; Red-winged Blackbird, 65; Cowbird, 14; Purple Grackle, 6; Meadowlark, 44; Snow Bunting, 29; Purple Finch, 4; Goldfinch, 22; Pine Finch, 2; Savanna Sparrow, 5; Ipswich Sparrow, 2; Song Sparrow, 12; Swamp Sparrow, 5; Junco, 34; Tree Sparrow, 15; Field Sparrow, 1; White-throated Sparrow, 8; Cardinal, 2; Towhee, 1; Myrtle Warbler, 50; American Pipit, 18; Carolina Wren, 1; Red-breasted Nuthatch, 1; Carolina Chickadee, 12; Brown Creeper, 1; Golden-crowned Kinglet, 19; Robin, 26. Total, 37 species, 1,051 individuals.—C. J. PENNOCK and SPENCER TROTTER, M.D.

Summerville, S. C.—Dec. 25; 7.15 to 8.30 A.M., 9.30 A.M. to 2.20 P.M. and 3.20 to 6 P.M. Clear; ground bare; wind northwest, very light; temp., 40°. Bob-white, 2; Mourning Dove, 4; Turkey Vulture, 30; Black Vulture, 1; Marsh Hawk, 1; Red-tailed Hawk, 1; Southern Hairy Woodpecker, 7; Southern Downy Woodpecker, 10; Red-cockaded Woodpecker, 10; Yellow-bellied Sapsucker, 1; Red-bellied Woodpecker, 8; Flicker, 40; Phoebe, 9; Blue Jay, 18; American Crow, 50; Fish Crow, 4; Cowbird, 3; Red-winged Blackbird, 4; Meadowlark, 60; Rusty Blackbird, 60; Purple Finch, 2; American Goldfinch, 14; Vesper Sparrow, 120; Grasshopper Sparrow, 2; White-throated Sparrow, 80; Field Sparrow, 30; Junco, 30; Song Sparrow, 56; Fox Sparrow, 1; Towhee, 22; Cardinal, 32; Pine Warbler, 7; Myrtle Warbler, 80; American Pipit, 40; Mockingbird, 19; Catbird, 1; Brown Thrasher, 2; Carolina Wren, 20; Winter Wren, 2; Brown Creeper, 1; White-breasted Nuthatch, 12; Brown-headed Nuthatch, 29; Tufted Titmouse, 42; Carolina Chickadee, 30; Ruby-crowned Kinglet, 16; Robin, 60; Blue-bird, 34. Total, 47 species, 1,107 individuals.—WILLIAM M. NORRIS, JR.

Melrose, Florida.—Dec. 25; 7 to 11 A.M. Clear; ground bare; wind southwest, light; temp., 58°. Pied-billed Grebe, 85; Mallard, 22; Pintail, 65; Ring-necked Duck, 250; American Bittern, 2; Great Blue Heron, 8; Little Blue Heron, 3; American Coot, 50; Florida Bob-white, 20; Ground Dove, 27; Turkey Vulture, 18; Southern Hairy Woodpecker, 3; Southern Downy Woodpecker, 8; Yellow-bellied Sapsucker, 12; Red-bellied Woodpecker, 19; Flicker, 10; Phoebe, 7; Blue Jay, 120; Meadowlark, 6; Goldfinch, 4; Vesper Sparrow, 65; Savanna Sparrow, 20; Chipping Sparrow, 17; Towhee, 35; Cardinal, 50; Loggerhead Shrike, 3; White-eyed Vireo, 26; Myrtle Warbler, 17; Mockingbird, 30; Catbird, 7; Brown Thrasher, 15; House Wren, 2; Hermit Thrush, 4; Robin, 40; Bluebird, 75. Total, 35 species, 1,145 individuals.—REV. WALTER I. ECK.

Warrington, Florida.—Dec. 25; 7.30 to 11 A.M. Clear; ground bare; light, northwest breeze; temp., 56°. Horned Grebe, 4; Herring Gull, 9; Turkey Buzzard, 2; Phoebe, 3; Florida Blue Jay, 2; White-throated Sparrow, 1; Cardinal, 2; Myrtle Warbler, 11; Water Thrush, 5; Mockingbird, 2; Short-billed Marsh Wren, 4; Ruby-crowned Kinglet, 5; Blue-gray Gnatcatcher, 9. Total, 13 species, 59 individuals.—F. M. BENNETT.

Palma Sola, Fla.—Dec. 25; all day. Clear; wind northeast to northwest. Pied-billed Grebe, 2; Loon, 2; Herring Gull, 150; Laughing Gull, 150; Royal Tern, 175; Black Skimmer, 20; Florida Cormorant, 200; Brown Pelican, 250; Great Blue Heron, 3; Louisiana Heron, 14; Little Blue Heron, 6; Black-bellied Plover, 3; Killdeer, 4; Semipalmated Plover, 12; Florida Bob-white, 24; Turkey Vulture, 20; Marsh Hawk, 1; Osprey, 2; Bald Eagle, 3; Barn Owl, 1; Great Horned Owl, 2; Belted Kingfisher, 2; Red-bellied Woodpecker, 4; Southern Flicker, 6; Phoebe, 3; Blue Jay, 10; Meadowlark, 5; White-eyed Towhee, 8; Cardinal, 4; Loggerhead Shrike, 1; Blue-headed Vireo, 2; Myrtle Warbler, 100; Oven-bird, 2; Southern Yellow-throat, 5; Mockingbird, 6; Catbird, 4; Marian's Marsh Wren, 2; Ruby-crowned Kinglet, 2; Blue-gray Gnatcatcher, 5; American Robin, 160; (on the 21st. about 4,000 Robins passed overhead). Total, 41 species, 1,475 individuals.—ELEANOR P. EARLE.

Palma Sola, Fla.—Dec. 25; all day. Pied-billed Grebe, 1; Loon, 3; Herring Gull, 10; Laughing Gull, 10; Royal Tern, 5; Black Skimmer, 4; Florida Cormorant, 30;

Brown Pelican, 40; Great Blue Heron, 2; Louisiana Heron, 16; Black-bellied Plover, 3; Killdeer, 2; Semipalmated Plover, 8; Bob-white, 25; Mourning Dove, 100; Marsh Hawk, 1; Turkey Vulture, 30; Black Vulture, 6; American Osprey, 2; Bald Eagle, 1; Barn Owl, 1; Great Horned Owl, 2; Belted Kingfisher, 2; Southern Flicker, 2; Phoebe, 2; Blue Jay, 10; Cardinal 1; White-eyed Towhee, 3; Meadowlark, 1; Maryland Yellow-throat, 2; Myrtle Warbler, 60; Yellow-throated Warbler, 2; Blue-head Vireo, 2; Blue-gray Gnatcatcher, 12; Catbird, 14; Mockingbird, 8; Ruby-crowned Kinglet, 1; American Robin, 200. Total, 38 species, 624 individuals.—CARLOS EARLE.

Apalachicola, Florida.—Dec. 25; Near Apalachicola Bay; 6.40 to 8 A.M. Clear; very light, north wind; temp., 45°. On Apalachicola Bay; 10.30 A.M. to 1 P.M. Clear; northeast wind; temp., about 60°. Herring Gull, 24; Florida Cormorant (?), 12; Wilson's Snipe, 1; Killdeer, 11; Pelican, 32; Great Blue Heron, 1; Turkey Vulture, 1; Ground Dove, 1; Phoebe, 2; Prairie Horned Lark, 30; Fish Crow, 39; Red-winged Black-bird, 17; Boat-tailed Grackle, 3; Goldfinch, 50; Myrtle Warbler, 3; Palm Warbler, 18; Mockingbird, 6; Golden-crowned Kinglet, 5. Total, 18 species, 256 individuals.—MR. and MRS. G. CLYDE FISHER.

Deemer, Miss.—Dec. 25; 9.30 to 12 M. Clear; sunny; ground bare; no wind; temp., 48° in morning, 68° at noon. Killdeer, 4; Bob-white, 9; Turkey Buzzard, 5; Sparrow Hawk, 1; Barn Owl, 1; Kingfisher, 1; Southern Downy Woodpecker, 2; Southern Hairy Woodpecker, 1; Red-headed Woodpecker, 20; Red-bellied Woodpecker, 3; Yellow-bellied Sapsucker, 2; Flicker, 3; Phoebe, 2; Florida Blue Jay, 9; Crow, 2; Purple Grackle, 500; Rusty Blackbird, 13; Meadowlark, 7; Goldfinch, 14; Pine Siskin, 3; Field Sparrow, 13; Junco, 13; White-throated Sparrow, 26; Song Sparrow, 1; Towhee, 12; Cardinal, 5; Loggerhead Shrike, 1; Myrtle Warbler, 8; Pine Warbler, 6; Louisiana Water Thrush, 1; White-breasted Nuthatch, 1; Brown-headed Nuthatch, 1; Tufted Titmouse, 30; Chickadee, 10; Brown Thrasher, 2; Mockingbird, 1; Winter Wren, 11; Carolina Wren, 4; Bewick's Wren, 1; Golden-crowned Kinglet, 3; Ruby-crowned Kinglet, 2; Brown Creeper, 1; Hermit Thrush, 1; Bluebird, 7. Total, 44 species, 753 individuals.—MRS. F. E. WATROUS.

Knoxville, Tenn.—Dec. 26; 8 A.M. to 3.30 P.M. Clear; ground bare; wind southwest, very light; temp., 34° to 47°. Turkey Buzzard, 1; Flicker, 4; Phoebe, 1; Crow, 30; Blue Jay, 3; Junco, 12; Song Sparrow, 1; Wren, 4; Titmouse, 3; Bluebird, 6. Total, 10 species, 67 individuals.—MAGNOLIA WOODWARD.

Versailles, Kentucky.—Dec. 24; 10 A.M. to 12 M. Sun shining part of time; ground bare and soft; wind west, light; temp., 42°. Black Vulture, 1; Hairy Woodpecker, 3; Downy Woodpecker, 2; Red-bellied Woodpecker, 3; Flicker, 3; Crow, 400; Meadowlark, 1; Goldfinch, 4; Junco, 11; Song Sparrow, 1; Mockingbird, 4; Carolina Wren, 3; Bewick's Wren, 3; Tufted Titmouse, 1; White-breasted Nuthatch, 2; Chickadee, 5; Bluebird, 4; Sparrow Hawk, 1; Total, 18 species, 450 individuals.—MRS. LUCAS BRODEHEAD.

Louisville, Kentucky.—Dec. 25; 10 A.M. to 12 M. Sky clear; ground bare; wind southwest and rather strong; temp., about 50°. Red-bellied Woodpecker, about 6; Downy Woodpecker, 3; Flicker, 1; Blue Jay, 50; Crow, 100; Junco, 30; Tree Sparrow, 10; Cardinal, 1; Brown Creeper, 2; Chickadee, 2; Tufted Titmouse, about 40; Mockingbird, 1; Bewick's Wren, 1. Total, 13 species, 250 individuals.—MR. and MRS. T. L. HANKINSON.

Kansas City, Mo.—Dec. 25; 9.30 to 11.30 A.M. Clear; ground bare; wind north, light; temp., 35°. Screech Owl, 1; Downy Woodpecker, 3; Prairie Horned Lark, 1; Crow, 10; Blue Jay, 6; Purple Finch, 40; Goldfinch, 6; Song Sparrow, 1; Tree Sparrow, 400; Junco, 50; Cardinal, 6; White-breasted Nuthatch, 10; Chickadee, 20; Titmouse, 15; Brown Creeper, 3; Mockingbird, 4. Total, 16 species, 576 individuals.—A. F. SMITHSON and B. M. STIGALL.

St. Louis, Mo. (Forest Park).—Dec. 25; 8.30 to 10 A.M. Clear; ground bare, except patches of snow; wind brisk, southwest; temp. at starting, 42°. Sparrow Hawk, 1; Hairy Woodpecker, 3; Downy Woodpecker, 5; Horned Lark, 5; Blue Jay, 5; American Crow, 15; Junco, 35; Brown Creeper, 4; White-breasted Nuthatch, 2; Tufted Titmouse, 7; Chickadee, 4. Total, 11 species, 86 individuals.—R. H. DEAN.

Kansas City, Mo. (Swope Park).—Dec. 25; 9.30 A.M. to 12 M. Clear; ground bare; wind northwest, twelve miles, temp., 39°. Mallard, 2; Bob-white, 20; Hairy Woodpecker, 5; Downy Woodpecker, 4; Red-bellied Woodpecker, 4; Flicker, 1; Belted Kingfisher, 1; Blue Jay, 11; Crow, 37; Tree Sparrow, hundreds; Junco, hundreds; Cardinal, 100; Brown Creeper, 1; White-breasted Nuthatch, 3; Tufted Titmouse, 11; Chickadee, 17; Mockingbird, 1. Total, 17 species, 218 individuals, plus Tree Sparrows and Juncos.—H. R. WALMSLEY.

Clay Center, Kans.—Dec. 25; 9 to 9.30 A.M., 11.25 to A.M. 3.30 P.M. Clear; ground partly covered with snow; wind south, light. American Rough-legged Hawk, 1; Downy Woodpecker, 2; Prairie Horned Lark, 9; Crow, 14; Harris Sparrow, 17; Tree Sparrow, 44; Junco, 3; Cardinal, 4; Northern Shrike, 1; Chickadee, 4. Total, 10 species, 98 individuals.—MR. and MRS. E. W. GRAVES.

Youngstown, Ohio.—Dec. 25; 7 A.M. to 4 P.M. Cloudy; no snow; brisk, southwest wind; temp., 35° to 40°. Distance walked twenty miles. Ruffed Grouse, 4; Red-tailed Hawk, 2; Barred Owl, 1; Hairy Woodpecker, 7; Downy Woodpecker, 15; Pileated Woodpecker, 1; Red-bellied Woodpecker, 2; Flicker, 2; Blue Jay, 13; Tree Sparrow, 18; Song Sparrow, 6; Towhee, 1 (female); Cardinal, 5; Carolina Wren, 1; White-breasted Nuthatch, 17; Red-breasted Nuthatch, 1; Tufted Titmouse, 1; Black-capped Chickadee, 17. Total, 18 species, 114 individuals. Dec. 20, 1907 we saw about twenty male Towhees in same locality that we observed the female on Christmas day.—GEO. L. FORDYCE and REV. S. F. WOOD.

Cadiz, Ohio.—Dec. 22; 2 to 4 P.M. Cloudy; ground partly snow covered; wind southeast, light; temp., 40°. Hairy Woodpecker, 3; Downy Woodpecker, 12; Red-bellied Woodpecker, 3; Crow, 2; Tree Sparrow, 20; Junco, 1; Song Sparrow, 12; Cardinal, 24; Carolina Wren, 2, (sings); White-breasted Nuthatch, 15; Chickadee, 6; Golden-crowned Kinglet, 3. Total, 12 species, 103 individuals. A Yellow-bellied Sapsucker has been a regular visitor this winter at a bird lunch-counter kept by Miss Ellison. It relishes unpicked grapes.—HARRY B. McCONNELL, JOHN CONWELL, JR. and EMMA ELLISON.

Cadiz, Ohio.—Dec. 22; 9 A.M. to 1 P.M. Clouds, sunshine, snow, rain and a strong, south wind, all struggled for supremacy; temp., 36° to 45°. Sparrow Hawk, 1; Hairy Woodpecker, 3; Downy Woodpecker, 12; Red-bellied Woodpecker, 6; Flicker, 2; Tree Sparrow, 12; Junco, 8; Song Sparrow, 2; Cardinal, 4; Carolina Wren, 5, (sings); White-breasted Nuthatch, 16; Tufted Titmouse, 13 (sings); Chickadee, 19. Total, 13 species, 103 individuals.—HARRY B. McCONNELL.

Rinards Mills, Ohio.—Dec. 18; 9 to 10 A.M. Clear; light snow; wind northwest; temp., 28°. Bob-white, 25; Ruffed Grouse, 4; Downy Woodpecker, 1; Pileated Woodpecker, 3; Red-headed Woodpecker, 1; Crow, 30; Goldfinch, 6; Snowflake, 5; Junco, 4; Song Sparrow, 4; Cardinal, 9; Wren, 2; Tufted Titmouse, 30; Robin, 3. Total, 14 species, all in or near an old apple orchard.—ROBERT M. LEE.

Sidney, Ohio.—Dec. 25; 7 to 8 A.M. Cloudy; ground bare; wind south, very strong; temp., 33°. Crow, 5; Junco, 6; Song Sparrow, 2; Cardinal, 2. Total, 4 species, 15 individuals.—FARIDA WILEY.

Richmond, Ind.—Dec. 25; 8 A.M. to 12 M. Clear; slightly overcast; ground bare; wind south, light; temp., 30° to 42°. Sparrow Hawk, 1; Kingfisher, 1; Downy Woodpecker, 7; Hairy Woodpecker, 1; Red-bellied Woodpecker, 1; Flickers, 4; Blue Jay, 8; Crow, 14; Cowbird, 1; Towhee, 2; Goldfinch, 20; Cardinal, 20; Junco, 50; Tree

Sparrow, 60; White-throated Sparrow, (singing), 1; Song Sparrow, (singing), 16; Carolina Wren, 1; Brown Creeper, 3; Titmouse, 4; Chickadee, 10; Golden-crowned Kinglet, 4. Total, 21 species, 229 individuals.—MISS CARPENTER, LUCY V. BAXTER COFFIN and P. B. COFFIN.

Richmond, Ind.—Dec. 25; 11 A.M. to 1 P.M. Cloudy; wind west, strong; temp., 26°. Downy Woodpecker, 1; Hairy Woodpecker, 1; Crow, 8; Blue Jay, 3; Song Sparrow, 2; White-throated Sparrow, 1 (singing); Tree Sparrow, abundant; Juncos, abundant; Goldfinch, 6; Purple Finch, 3; Towhee, 1; Cardinal, 2; Chickadee, 7; Tufted Titmouse, 1; Golden-crowned Kinglet, 2. Total, 15 species.—MISS M. BAXTER, MRS. J. G. SUTTON, MR. J. G. SUTTON and MRS. P. B. COFFINS.

Lafayette, Ind.—Dec. 27; 10 A.M. to 12 M. Sunshiny until 10, when high west wind came up and became cloudy; temp. thawing, but rough wind; snow two inches deep. Distance traversed two miles. Sparrow Hawk, 2; Downy Woodpecker, 2; Flicker, 2; Crow, 10; Blue Jay, 8; Junco, 2; Tree Sparrow, 25; Song Sparrow, 2; Cardinal, 2; Titmouse, 2. Total, 10 species, 57 individuals.—M. L. FISHER.

Detroit (Belle Isle).—Dec. 25; 8.15 to 11 A.M. Cloudy and hazy; no snow on ground but covered with heavy frost; wind very light and from northeast; temp., 34°. Herring Gull, 3; Hairy Woodpecker, 8; Crow, 9; White-breasted Nuthatch, 26; Chickadee, 12; Brown Creeper, 1. Total, 6 species, 59 individuals.—JEFFERSON BUTLER.

Peoria, Ill.—Dec. 25; 10 A.M. to 2 P.M. Cloudy but clearing; three inches of snow; wind strong, northwest; temp., 33°. Herring Gull, 14; Downy Woodpecker, 5; Hairy Woodpecker, 1; Red-bellied Woodpecker, 1; Blue Jay, 6; Crow, 5; Purple Finch, 4; Goldfinch, 2; Tree Sparrow, 150; Junco, 125; Cardinal, 15; Brown Creeper, 4; White-breasted Nuthatch, 2; Tufted Titmouse, 4; Chickadee, 36. Total, 15 species, 374 individuals.—W. H. PACKARD and C. S. VANDEUSEN.

Rock Island, Ill.—Dec. 25; 9.30 A.M. to 12.30 P.M. Partly cloudy; ground bare and frozen; light, northwest wind; temp., 39°. Bob-white, 17; Hairy Woodpecker, 2; Downy Woodpecker, 3; Red-bellied Woodpecker, 1; Blue Jay, 8; Tree Sparrow, 60; Junco, 12; Brown Creeper, 2; White-bellied Nuthatch, 3; Chickadee, 4; Golden-crowned Kinglet, 1. Total, 11 species, 116 individuals.—BURTIS H. WILSON.

LaGrange, Ill. (Salt Creek Valley).—Dec. 25; 8.30 A.M. to 12.30 P.M. Cloudy; four inches of snow; wind northwest, strong; temp., 33°. Herring Gull, three to fifteen miles from the lake (Michigan); Prairie Hen, 5; Hairy Woodpecker, 1; Downy Woodpecker, 1; Blue Jay, 4; Crow, 22; Red-poll, 12; Cardinal, 2; Brown Creeper, 1. Total, 9 species, 51 individuals.—L. R. SANFORD and F. E. SANFORD.

Desplains River Region, Cook County, Ill.—Dec. 24; 7.40 A.M. to 3.30 P.M. Clear; eight inches of crunching, becoming slushy snow; wind southwest to west, light; temp., 1° to 4°. Herring Gull, 2; Hairy Woodpecker, 3; Northern Downy Woodpecker, 1. Northern Flicker, 1; Blue Jay, 5; Crow, 24; Tree Sparrow, 30; Junco, 2; Towhee, 11; Brown Creeper, 8; Chickadee, 3; White-breasted Nuthatch, 1. Total, 12 species, 81 individuals.—FRANK C. GATES and RALPH P. GATES.

Graceland Cemetery, Chicago; Evanston; Glencoe; Northfield; Skokie Swamp to Evanston, Cook County, Ill.—Dec. 25; 7.10 A.M. to 3.20 P.M. Cloudy; four to six inches snow; wind northwest, strong in the open; temp., 0° to 5°. Loon, 1; Herring Gull, 6; American Merganser, 15; Lesser Scaup, 160; American Golden-eye, 8; White-winged Scoter, 1; American Rough-legged Hawk, 1; Hairy Woodpecker, 2; Downy Woodpecker, 1; Blue Jay, 15; Crow, 22; Tree Sparrow, 18; Junco, 3; Towhee, 1; Brown Creeper, 13; Chickadee, 3; Robin, 1. Total, 17 species, 271 individuals.—FRANK C. GATES.

Chicago.—Dec. 25; 9 A.M. to 1 P.M. Cloudy; wind west, veering to northwest; temp., 34°; ground with four inches of snow. Herring Gull, 15; Ring-billed Gull, Downy Woodpecker, 3; Horned Lark, 2; Blue Jay, 10; Crow, 23; Goldfinch, 10; Tree Sparrow, 12; Total, 8 species, 78 individuals.—H. S. PEPOON.

Warren, Ill.—Dec. 26; 9 A.M. to 1 P.M. Clear; ground bare; wind southwest, light; temp., 48°. Distance walked five miles. Canada Goose, 8; Prairie Hen, 14; Mourning Dove, 1; Red-tailed Hawk, 3; Red-shouldered Hawk, 1; Rough-legged Hawk, 3; Sparrow Hawk, 2; Screech Owl, 2; Hairy Woodpecker, 3; Downy Woodpecker, 3; Horned Lark (Prairie), 5; Blue Jay, 15; Crow, 128; Red-winged Blackbird, 1; Tree Sparrow, 30; Brown Creeper, 2; White-bellied Nuthatch, 1; Chickadee, 14. Total, 18 species, 236 individuals.—H. S. PEPOON.

Jackson Park, Chicago, Ill.—Dec. 25; 7 A.M. to 2 P.M. Clear to cloudy; ground covered with snow; wind west to northwest; twenty to twenty-five miles an hour; temp., 35° to 40°. Herring Gull, 50; Ring-billed Gull, 30; Bonaparte's Gull, 1; American Merganser, 2; Red-breasted Merganser, 1; Downy Woodpecker, 4; Blue Jay, 2; Total, 7 species, 90 individuals.—EDWARD E. ARMSTRONG and CARL C. LAWSON.

Stickney, Chicago, Ill.—Dec. 25; 12 M. to 3 P.M. Cloudy; ground covered with snow; wind northwest, twenty miles an hour; temp., 40°. Ring-billed Gull, 8; Crow, 3; Lapland Longspur, 2. Total, 3 species, 13 individuals.—J. L. DEVINE.

Moline, Ill.—Dec. 27; 10 A.M. to 12 M., on Arsenal Island in Mississippi River. Partly clear; ground bare; wind southwest, light, temp., 52°. Bob-white, 20; Hairy Woodpecker, 5; Downy Woodpecker, 7; Red-bellied Woodpecker, 1; Blue Jay, 3; Crow, 2; Tree Sparrow, 8; Cardinal, 3; Junco, flock of 30; White-breasted Nuthatch, 7; Chickadee, 9. Total, 11 species, 95 individuals.—MRS. E. H. PUTNAM and GRACE PUTNAM.

Grinnell, Iowa.—Dec. 22; 2 to 5 P.M. Cloudy; misty; little snow on ground; wind northeast, light; temp., 23°. Hairy Woodpecker, 1; Downy Woodpecker, 3; Flicker, 1; Blue Jay, 3; Crow, 5; Junco, 2; Tree Sparrow, 40; Brown Creeper, 1; White-breasted Nuthatch, 1; Chickadee, 7. Total, 10 species, 64 individuals.—W. C. STAAT.

Cedar Rapids, Iowa.—Dec. 29; 11 A.M. to 12.20 P.M. Pasture land, meadow, mixed woods and cemetery; cloudy; one inch of snow on ground; wind southeast, strong; temp., 32°; began to snow at 11.25. Downy Woodpecker, 2; Red-shafted Flicker, 1; Blue Jay, 4; Crow, 1; White-breasted Nuthatch, 2. Total, 5 species, 10 individuals.—GLEN M. HATHORN.

Milwaukee, Wis.—Dec. 22; 9.30 A.M. to 1.30 P.M. Cloudy; snow and rain, ground covered; wind southwest, light; temp., 32° to 30°. Herring Gull, 7; Blue Jay, 2. Total, 2 species, 9 individuals. Dec. 27; 8.45 to 10.45 A.M. Cloudy; light fog; ground covered; wind southwest, light; temp., 47°. Herring Gull, 61; Lesser Scaup, 227; Barrow's Golden-eye, 26; Bufflehead, 7; Downy Woodpecker, 1. Total, 5 species, 322 individuals.—I. N. MITCHELL.

Madison, Wis.—Dec. 27; 11 A.M. to 12 M. Day clear; slight covering of snow, wind northwest, light; temp., 46°. Herring Gull, 1; Blue Jay, 4; Golden-crowned Kinglet, 7; Brown Creeper, 2; Chickadee, 2. Total, 5 species, 16 individuals.—R. H. DENNISTON.

Kilbourn, Wis.—Dec. 24 to 26; clear; ground mostly bare; wind southwest; temp., 36°. 'Hoot' Owl, 1; Downy Woodpecker, 2; Juncos, 50; Blue Jay, 3; Goldfinch, 7; Nuthatch, 1; Chickadee, 6. Total, 7 species, 70 individuals.—CHESTER W. SMITH.

Elkhorn, Wis.—Dec. 26; 9.30 A.M. to 12 M. Clear, clouding before 12 M.; ground covered with snow; wind southeast, strong; temp., 30°. Dec. 27; 9.30 A.M. to 12 M. Thawing, ground nearly bare; wind southwest, strong; temp., 40°. Canada Goose, 32; Downy Woodpecker, 1; Blue Jay, 17; Crow, 17; Song Sparrow, 1; Tree Sparrow, 2; Brown Creeper, 2; White-breasted Nuthatch, 1; Red-breasted Nuthatch, 1; Golden-crowned Kinglet, 2. Total, 10 species, 76 individuals.—CORA HENDERSON, MABEL F. BECKWITH and SARAH FRANCIS.

Sheboygan Falls, Wis.—Dec. 25; 9 A.M. to 12 M. Ground covered with about one inch of snow; wind west, strong; partly cloudy, toward end of trip it started to snow;

temp., 30°. Hairy Woodpecker, 1; Downy Woodpecker, 5; Blue Jay, 6; Crow, 200; Red-poll, 6; Snowflake, 12; Junco, 8; White-breasted Nuthatch, 1; Chickadee, 3; Golden-crowned Kinglet, 3. Total, 10 species, 245 individuals.—JAMES SANFORD.

Minneapolis, Minn.—Dec. 24; 7.30 A.M. to 12 M. Light snow; weather cloudy; wind southeast; temp., 9° to 30°. Downy Woodpecker, 2; Blue Jay, 5; Tree Sparrow, 40; Goldfinch, 2; Nuthatch, 8. Total, 5 species, 57 individuals.—HARRIET ORNITHOLOGICAL SOCIETY.

Zumbra Heights to Excelsior, Minn. Eight miles forest and country roads.—Dec. 25; 10 A.M. to 1 P.M. Clear; two inches snow; light, northwest wind; temp., 8° above zero. Downy Woodpecker, 2; Brown Creeper, 4; White-breasted Nuthatch, 1. Total, 3 species, 7 individuals.—E. F. PABODY, JR.

Red Wing, Minn.—Dec. 25; 8.15 A.M. to 12.30 P.M. Cloudy most of the morning; ground lightly covered with snow; wind northwest, very strong, almost a gale at times; temp., 18°. Hairy Woodpecker, 1; Blue Jay, 2; Goldfinch, 1; Purple Finch, 15; Chickadee, 12; White-breasted Nuthatch, 4; Robin, 1. Total, 7 species, 36 individuals.—NELS. BORGES, FUTHJOF WACE and CHARLES PHILLIPS.

Sioux Falls, S. D.—Dec. 29; 1.30 to 5.30 P.M. Cloudy, snowing all day; ground covered with about half a foot of snow in evening; wind northeast, medium. Prairie Chicken, 2; Long-eared Owl, 1; Downy Woodpecker, 1; Tree Sparrow, 20. Total, 4 species, 24 individuals.—ADRIAN LARSON.

Littleton, Colo.—Dec. 25; 8 A.M. to 2.30 P.M. Clear; ground partly covered with snow, melting; wind northeast, light; temp., 26° at time of starting, 56° when returned. Blue-winged Teal, 1; American Coot, 1; Ring-necked Pheasant, 5; Ferruginous Rough-legged Hawk, 3; Red-shafted Flicker, 10; Desert Horned Lark, 100; Black-billed Magpie, 50; Long-crested Jay, 10; Red-winged Blackbird, 20; Western Meadowlark, 1; Purple Finch, 50; House Finch, 10; Pine Finch, 10; Western Tree Sparrow, 100; Slate-colored Junco, 10; Pink-sided Junco, 40; Mountain Song Sparrow, 60; Long-billed Marsh Wren, 2; Long-tailed Chickadee, 10. Total, 19 species, 493 individuals.—GEO. RICHARDS.

Edmonton, Alta, Canada.—Dec. 23; 10 A.M. to 3.45 P.M. Clear; four inches snow during previous night; wind south; two to three miles; temp., 30°. Canadian Ruffed Grouse, 1; Hairy Woodpecker, 2; Downy Woodpecker, 2; Western Horned Owl, 1; Pine Grosbeaks, 2; Chickadee, 8. Total, 6 species, 16 individuals.—J. A. FIFE and JNO. M. SCHRECK.

Stoney Plain, Alberta.—Dec. 17; 8 A.M. to 1 P.M. Clear; about two inches of snow; light, south wind; temp., 0°. Snowflake, 200; Raven, 2; Rough-legged Hawk, 1; Pine Grosbeak, 10; Canada Jay, 4; Chickadee, 10. Total, 6 species, 227 individuals.—SIDNEY S. S. STANSELL.

Seattle to Bremerton, Wash. (eighteen miles by steamer and return.)—Dec. 26; 9 A.M. to 5 P.M. Morning cloudy, afternoon clearing; light wind from southwest; temp., at 8 A.M. 38°. Holboell's Grebe, 7; Horned Grebe, 31; Pacific Loon, 3; Marbled Murrelet, 40; Pigeon Guillemot, 100; California Murre, 1; Glaucous-winged Gull, 4,500; Herring Gull, 200; Short-billed Gull, 1,200; Bonaparte's Gull, 2; American Merganser, 60; Red-breasted Merganser, 30; Hooded Merganser, 2; American Wirgeon (?), 40; Lesser Scaup Duck, 8; Bufflehead, 1; White-winged Scoter, 400; Surf Scoter, 50; Ruddy Duck, 1; Kingfisher, 1; Harris' Woodpecker, 1; Northwest Crow, 88; Pine Siskin, 60; Oregon Junco, 31; Rusty Song Sparrow, 26; Yakutat (?) Fox Sparrow, 1; Oregon Towhee, 9; Cedar Waxwing, 1; Seattle Wren, 2; Western Winter Wren, 9; Chestnut-backed Chickadee, 22; Western Golden-crowned Kinglet, 17; Western Robin, 3; Varied Thrush, 1. Total, 35 species, 7,000 individuals.—W. LEON DAWSON.

Annapdale (near Los Angeles), Cal.—Dec. 25; 9 to 10.20 A.M. and 3.30 to 5 P.M. Clear; wind westerly, very light; temp., 68°. Around ranch house. Valley Partridge,

1 (several heard); Mourning Dove, 5; Turkey Vulture, 3; Sharp-shinned Hawk, 1; Desert Sparrow Hawk, 2; Red-shafted Flicker, 3; Anna's Hummer, 2; Ash-throated Flycatcher, 1; Black Phoebe, 2; California Jay, 4; Western Meadowlark, 7; Brewer's Blackbird, 30; House Finch, 21; Arkansas Goldfinch, 6; Western Lark Sparrow, 2; Gambel's Sparrow, 27; Song Sparrow, 2; California (or Anthony) Towhee, 13; California Shrike, 5; Audubon's Warbler, 19; Western Mockingbird, 7; Dotted Cañon Wren, 2; Plain Titmouse, 8; California Bush-Tit, 13; Ruby-crowned Kinglet, 3; Western Robin, 18. Total, 26 species, about 207 individuals.—ELTA M. LEWIS.

San Diego, Calif.—Dec. 25; 7.15 to 8.15 A.M., hills of City Park; 2 to 4.15 P.M., Cañon one mile out; elevation 50 to 350 feet. Ground partially covered with sage, alder and willow, and some pepper and eucalyptus trees. Sky clear; temp., 45° to 80°. Wind northwest but very light. Valley Partridge, 300; Western Red-tailed Hawk, 1; Road Runner, 1; Red-shafted Flicker, 1; Black-chinned Hummingbird, 7; Costa's Hummingbird, 8; Couch's Kingbird, 1; Black Phoebe, 2; Horned Lark, 11; California Blue Jay, 1; Raven, 3; Meadowlark, about 75; California Purple Finch, about 100; Arkansas Goldfinch, 2; Western Vesper Sparrow, 7; White-crowned Sparrow, 35; Tree Sparrow, 7; California Towhee, 42; California Shrike, 3; Bell's Vireo, about 35; Audubon's Warbler, about 100; Long-tailed Chat, 4; Mockingbird, 2; Curve-billed Thrasher, 18; Dwarf Hermit Thrush, 2; Bluebird, 16. Total, 26 species, 784 individuals.—H. D. MEISTER.



CARDINAL ON NEST

Photographed by F. E. Howe, Sterling, Ill.

Book News and Reviews

A PRELIMINARY CATALOG OF THE BIRDS OF MISSOURI. By OTTO WIDMANN. St. Louis, Mo., 1907. [Trans. Acad. Science, St. Louis, Vol. XVII, No. 1, 288 pages.]

A state bird-list presenting authoritatively and adequately what is known of the distribution and manner of occurrence of the birds of the area under consideration is one of the most valuable contributions to the foundation of ornithological knowledge. It is a stable starting point for all subsequent investigation and done well it has not to be done again in a generation.

The preparation of such a list requires long-continued experience in the field to which it relates, not alone that the author may gain much information at first-hand, but that through personal observation he may weigh critically all data contributed by others.

These conditions and many others are admirably filled by the author of this volume and the result is of that high order which his previous contributions to ornithological literature have led us to expect from his pen.

Introductory sections treat of the sources of information which have been drawn on,—bibliography, explanation of terms used, faunal areas, climate, topography, decrease of birds, and bird protection. The twenty pages devoted to these subjects are followed by the list proper, in which 383 species and subspecies are treated. Of this number 353 have been duly accredited to the state and of these 162 are known to nest.

The annotations contain a general statement of the birds' range, followed by a detailed statement of its status in Missouri, of interest to students of distribution at large and of special value to the local student. We congratulate Dr. Widmann on the appearance of this book in both meanings of the word. It should do much to stimulate the study of birds in Missouri.—F. M. C.

AMERICAN BIRDS STUDIED AND PHOTOGRAPHED FROM LIFE. By WILLIAM LOVELL FINLEY. Illustrated from Photographs by Herman T. Bohlman and the Author. Charles Scribner's Sons. New York, 1907. 12mo. xvi + 256 pages, 48 full-page half-tones.

Mr. Finley has here brought together some of his earlier studies of bird-life which, originally published in 'The Condor' and other magazines, we are glad to have in book form. His skill and patience, together with that of his associate, Mr. Bohlman, are too well known to call for comment here, but due emphasis should be made of the fact that although the text of these stories of bird-life was evidently prepared with a popular audience in mind, it contains a large amount of original and novel information in regard to the birds treated, resulting from the intimate, personal relation which the bird photographer establishes between himself and his subject.

The formal bird biographer will therefore find here much material worthy of quotation, and for this reason we could wish for fuller data in regard to the place and time where these studies were made.

We must express our regret that Mr. Finley has marred his book by inaccuracies in nomenclature which has led him to give the common names of eastern birds to western species which are not even their representatives. Neither the Blue Jay (*Cyanocitta cristata*) nor the Bluebird (*Sialia sialis*), for example, are found west of the Rockies, nor are they represented there by subspecific forms. As Mr. Finley very truly remarks (prefatory note) "the naturalist who uses the camera in the field often has the advantage of backing his observations with proof," but when he labels a photograph of a California Jay 'Blue Jay' (see figures facing pages 165 and 168) he is not making proper use of his evidence.

Mr. Finley's work is good enough to stand on its merits and we believe he

will find eastern readers just as much interested in his attractive stories of Western bird-life if he calls his subjects by their right names.—F. M. C.

THE DEVELOPMENT OF NESTLING FEATHERS. By LYNDY JONES. Laboratory Bulletin No. 13, Oberlin College, Oberlin, Ohio, 1907. 8vo. 18 pages, VIII plates.

Professor Jones states that the studies on which this paper is based were made for the purpose of giving "a more complete account of the development of the down, or neossopile, than has been given by previous writers, and to show the true relation of this structure to the first definitive feathers."

After explaining the methods employed in the preparation of material, the development of the feather germ and of the barbs and barbules is described, and the relation of the down to the first definitive feather is discussed, the conclusion being reached that "the first down and its succeeding definitive feather are produced by one continuous growth, and therefore cannot be regarded as two distinct feathers."

Professor Jones' paper is an important contribution to the histology of feather growth and we trust he will follow it with one on the taxonomic value of the characters shown by the neossopile.—F. M. C.

GRAY LADY AND THE BIRDS; STORIES OF THE BIRD YEAR FOR HOME AND SCHOOL. By Mabel Osgood Wright. New York. The Macmillan Co., 1907. 12mo. xx + 437 pages; 48 full-page plates, 12 colored. Mrs. Wright has succeeded in weaving

into the narrative of a story well designed to hold the attention of juvenile readers a surprising amount of information in regard to birds, much of which, it may be added, is not to be found in the popular bird books. The following chapter or subject headings will give an indication of the book's contents: The bird—what is it?; Migrations; Molting; What the birds do for us and what we should do for them; Bird protection; Housing; Feeding; Feathers and Hats; The Procession Passes;

The Flight of the Birds; Hawks and Owls; Tree-Trunk Birds; Game Birds; Winter Birds; Spring Birds; May Birds.

In the arrangement of matter and the method of treatment the author has had the needs of teachers in mind; indeed it was the success of a pamphlet written for distribution by the Connecticut Audubon Society to the teachers of Connecticut that induced Mrs. Wright to prepare this volume.

Most of the illustrations, including the twelve colored ones, have appeared in the Educational Leaflets of the National Association of Audubon Societies; some are from 'Citizen Bird,' others are from BIRD-LORE and four of the most interesting are by Dr. C. F. Hodge.

Mrs. Wright also acknowledges her indebtedness to various writers for quotations from their works, while the Gray Lady herself presents the subject of bird study in so attractive a way that she will be sure to win the attention and interest of many children who might be repelled by exactly the same matter less skilfully handled.—F. M. C.

BIRDS AS CONSERVATORS OF THE FOREST. By F. E. L. BEAL. Rep. N. Y. Forest, Fish and Game Commission. 1902-3; pp. 236-274; 14 full-page colored plates.

Mr. Beal quotes Dr. A. D. Hopkins, who is in charge of Forest Insect Investigations in the Bureau of Entomology of the United States Department of Agriculture, to the effect that the "annual loss from insect work on forest trees, and their crude and finished products, amounts to at least one hundred million dollars." As a complementary statement, Mr. Beal adds "One very important means which Nature has provided for the restriction of these pests within reasonable bounds is found in the insect-eating birds, many species of which spend most of their lives upon trees, and subsist upon the insects found thereon." The memoir is devoted to the birds of this class, the food habits and economic value of Woodpeckers, Titmice, Nuthatches, the Brown Creeper, the Warblers, Kinglets, Cuckoos and Vireos being discussed at length.

The value of birds as the distributors of seeds is also described, the Robin, Cedar Waxwing, Blue Jay, Crow, Pine Grosbeak, and Crossbills rendering good service in this connection.

The part that the birds of prey play in forest preservation is shown in their destruction of the rodents so injurious to young trees.

The life-like, colored portraits by Fuetes of many of the species mentioned add greatly to the attractiveness of Professor Beal's paper and increase the effectiveness of the information it contains.—F. M. C.

The Ornithological Magazines

THE WARBLER.—The third volume of 'The Warbler,' which appears as an annual bulletin of the museum of its editor, John Lewis Childs, is a pamphlet of 56 pages, illustrated with a number of half-tones and a colored frontispiece of the eggs of the Santa Catalina Partridge.

Among other articles this publication contains 'The Breeding of the Arctic Towhee' and the 'Rock Wren a Cliff Dweller,' by P. B. Peabody; 'Field Notes from the Upper Penobscot,' by J. W. Clayton; 'Breeding of Harlan's Hawk in Iowa,' by Charles R. Keyes, and 'Long Island Bird Notes,' by John Lewis Childs. There are also two papers by John Bachman; the first, entitled 'Notes on Some Experiments Made on the Buzzard of Carolina—*Calhartes aura* and *C. atratus*,' contains a record of the experiments on which Bachman's paper on the 'Sense of Smell in Buzzards,' published in Loudon's Magazine of Natural History for 1834, was based. It is here stated to be "from original undated manuscript," but further details as to its history would be of interest.

The second paper is Bachman's well-known 'Essay on the Migration of Birds in North America,' which appeared in Silliman's 'American Journal of Science' (1836, pages 81 to 100), but is well worth republishing, though a reference to the original place of publication would have been desirable.—F. M. C.

THE CONDOR.—'The Condor' for November, 1907, contains several notes of unusual interest on the habits and distribution of Western birds. In the opening article, which is illustrated by two half-tones, Florence Merriam Bailey describes the nesting of the White-throated Swifts at Capistrano, California, where seven nests were located in cracks in the walls of the ruins of the old Spanish mission. The White-throated Swift usually nests high up in the most inaccessible cliffs and the finding of its nest only a few feet from the ground in the walls of a building is a remarkable, if not a unique discovery. Of almost equal interest is the record of the breeding of the Cassin Sparrow (*Peuceea cassini*) in eastern Colorado. Under the title 'A New Breeding Bird for Colorado,' L. J. Hershey and R. B. Rockwell describe the finding of the nest in July, 1907, at Barr, about twenty miles northeast of Denver. The species is common in central and western Kansas, and in Texas, New Mexico and Arizona, but has been found only once before in Colorado—a single specimen taken by E. R. Warren, in May two or three years ago, near Springfield, Baca county, in the southeastern part of the state. The present record not only fills in a supposed gap in the range, but carries the known distribution of the species 150 miles west of the Kansas boundary. Still another article to which special attention may be called is that by John E. Thayer on 'Eggs of the Rosy Gull.' Mr. Thayer figures an adult male, a young bird in the down, and four eggs of the Rosy Gull obtained from M. S. A. Bauturlin, a Russian ornithologist, who collected them in June, 1905, in the delta of the Kolyma river, in northeastern Siberia. The Ross, or Rosy Gull (*Rhodostethia rosea*) is one of the rarest of the Gulls. Until recently very little was known of its distribution or habits, as it is an arctic species whose range extends into high latitudes.

Brief notes on the birds observed during a trip through the Redwoods of Santa Cruz county, California, 'From Boulder to the Sea' are given by Milton S. Ray.

a description of a large breeding 'Colony of Tricolored Blackbirds' near Fresno, California, is presented by John G. Tyler; and an interesting account is contributed by Rev. P. B. Peabody of 'The Prairie Falcons of Saddleback Butte' in Sioux county, Nebraska, and of repeated attempts, finally successful, to locate the nesting site. In 'A Collecting Trip by Wagon to Eagle Lake, Sierra Nevada Mountains,' Harry H. Sheldon includes an annotated list of 91 species of birds and, among other interesting notes, records the nesting of the Cinnamon Teal at Eagle Lake and of the Northern Pileated Woodpecker near Big Meadows. The former record apparently gives the most northern locality at which the Cinnamon Teal has been found breeding in the state.

Two articles on Southwestern birds complete the list of papers. M. French Gilman concludes his list of 'Some Birds of Southwest Colorado,' and Austin Paul Smith contributes some brief 'Summer Notes from an Arizona Camp.' The most interesting point in the latter article is the record of the presence in the Whetstone Mountains of three species each of Thrashers, Orioles, Tanagers and Partridges, and no less than four representatives of the family of Nighthawks and Whip-poor-wills.

This number of 'The Condor' ends with page 211 and completes Volume IX—a volume larger than most of its predecessors, if not the largest in the series.—T. S. P.

Book News

'The Century' for January contains Mr. Finley's remarkable study 'The Home-Life of a California Condor,' which those who were fortunate enough to hear it will recall as one of the most stirring accounts of field-work ever presented before the American Ornithologists' Union.

Messrs. A. and C. Black (Soho Square, London, W.) announce the publication of the 'Birds of Britain' by J. Lewis Bonate. The book will be illustrated by 100

full-page plates reproduced by colortype from the originals of Dresser's 'Birds of Europe' in a manner which, if we may judge from the specimen plates examined, will be wholly satisfactory both to ornithologist and artist.

In 'The Nature Study Review' for December, Bina Seymour has some 'Observations on Barn Swallows' in which it appears that two young birds which left the following day were fed on August 7, 332 times. Feeding began at 6.03 A.M. and ended at 6.51 P.M. The birds were fed "almost without exception," alternately and the average number of insects for each young bird is said to be 166, but does it follow that only one insect was given each feeding?

We have received a prospectus of 'The Birds of Maine' by Ora W. Knight (84' Forest Ave., Bangor, Me.), which it is expected will be ready for delivery not later than April 15. The work will contain descriptions of plumages as well as biographies.

Witherby & Co., 326 High Holborn, London, announce the publication of a special photographic number of 'British Birds' on 'The Home-Life of Some Marsh Birds' by Emma L. Turner and P. H. Bahr. It is illustrated with thirty-two full-page plates and many text illustrations. The price, postpaid, is seventy cents.

The December, 1907, number of 'For California' (Vol. X, No. 1), issued by the California Promotion Committee, at San Francisco, is a 'Bird Number' and contains the following articles: 'Birds in California,' F. W. D. Evelyn; 'Birds of the California Desert,' F. W. Koch; 'Birds of My Winter Garden,' Bertha Chapman; 'The Greatest Bird Rookery in the West,' M. S. Ray; 'Some Birds the Stranger Sees,' Elizabeth Grinnell; 'Bird Beauty and Perfection,' W. E. Ritter; 'A Bird with a Language,' Joseph Grinnell; 'Birds of the Mountains,' W. W. Price; 'Pasadena Tourists,' W. P. Taylor; 'Gulls of San Francisco Bay,' C. E. Edwards; 'The Audubon Society of California,' W. Scott Way.

Bird-Lore

A Bi-monthly Magazine

Devoted to the Study and Protection of Birds
OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Edited by FRANK M. CHAPMAN

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Bird-Lore's Motto:

A Bird in the Bush is Worth Two in the Hand

WITH this issue BIRD-LORE reaches its tenth birthday and the Editor knows of no better way to celebrate the occasion than to acknowledge his indebtedness to those whose coöperation has made these ten years what we believe to have been a period of steady progress in the development of the magazine and in the widening of its sphere of influence.

BIRD-LORE'S defects are apparent enough and no one regrets them more strongly than its Editor who ever deploras that many other demands on his time prevent him from making the magazine wholly worthy of the support it has received; but let it be said to the credit of humanity that among the thousands of letters received from subscribers not one but has had some word of praise unmarred by the thorn of fault-finding.

Surely this is a cause for thanksgiving, if for no other than purely altruistic reasons, and very heartily do we express our gratitude to the correspondents, one and all, who have so materially lightened the editorial burden and brightened the editorial way.

In response to our request numerous suggestions have been received in regard to the family of birds which shall be figured when the Flycatchers are completed. Some correspondents ask for colored plates of the Shore Birds some select the Vireos, some the Wrens, while the greater num-

ber have chosen the Sparrows. One writer makes the excellent suggestion that as much time would be required to complete the series of Sparrow pictures it might be advisable to figure the species of a smaller family first and names the Wren as his preference if such a plan be adopted and we see no reason why it should not be. In the meantime, the processes of reproduction in color are being improved, and any delay should be accompanied by better results. The Sparrows are a far more difficult group to figure than the Warblers. In the latter, large masses of simple colors prevail. In the former, there is greater variety both of color and of pattern which only the best process can reproduce satisfactorily.

Is it due to the greatly increased interest in birds that the Eagles on the new ten- and twenty-dollar gold-pieces have met with so much criticism? Twenty years ago, we imagine, these coins might have appeared without occasioning more comment than has been aroused by other mint-born birds, whereas now the correctness or inaccuracy of the Eagles depicted upon them is one of the questions of the day, and the professional ornithologist is asked to decide controversies in regard to this point or that.

From a purely ornithological point of view both birds are incorrect in pose and in numerous details of structure, but St. Gaudens was not illustrating a text-book, and although he permitted himself to come nearer a real Eagle than, as far as we are aware, any other designer of an American coin, he took those liberties which art warrants and the result should no more be subjected to technical criticism than should the so-called 'wing' of an angel. It is a question of art, not of ornithology.

MR. Henry Oldys, of the Bureau of Biological Survey, reports the capture at Manahawkin Bay, New Jersey, of a Canvasback Duck with a band on its leg marked "T. J. O. D. 48." He would be glad to hear from any one who knows of this bird's history.

The Audubon Societies

SCHOOL DEPARTMENT

Edited by MABEL OSGOOD WRIGHT

Address all communications to the Editor of the School Department, National Association of Audubon Societies, 141 Broadway, New York City

FEBRUARY HINTS

IF the ground is snow-covered in February, you will probably be troubled in your walks and watching of birds for the glare and reflection of light, for not without cause did the Red Men call February the "month of snow-blindness." A very simple device may be added to the field- or opera-glass that will give both relief from the glare and added keenness to the vision, thus: From strong, yet flexible cardboard make a pair of tubes of a size that will fit closely over the large end of the glasses and project about three inches beyond the frames; line these tubes smoothly with unglazed black paper,—that which comes wrapped about photograph plates will do nicely. These tubes cut off the side light and prevent cross reflection upon the lenses, and have somewhat the same effect upon the eye as the 'stopping down' of a photographic lens has upon the sensitive plate—greater clearness and accuracy of detail. Nor is the value of the contrivance confined to winter alone, for it is equally useful when looking at birds across water or against the light, as one must do sometimes, or lose the view of a rare species. Those who find these tubes satisfactory may have them duplicated in leather so that they will form part of the permanent field-going equipment.

This last calendar month of the winter that never really ends until the spring equinox of March 21, is an excellent time for doing a little technical bird study. If the student only knows half a dozen birds, such as the Robin, Barn Swallow, Crow, English Sparrow, domestic Pigeon and one of the common Woodpeckers, he has the framework for studying the differences of the six families to which they belong, by the aid of books and pictures, even if mounted museum specimens are not within reach, and in this way he will be less puzzled in naming newcomers. Plumage varies more or less in many species according to season, but general build, the shape of beak and claws and the conformation of the tail remains the same the year through.

If you have not already put up nesting-boxes do it now or your labor is likely to be in vain, except in the case of the Wrens who ask no questions and will cheerfully adapt to their needs a home large enough for an Owl by cramming it full of twigs and then squeezing their nest into one corner. The Wren is a most comfortable bird in spite of its restlessness and quick temper, for it has no tra-

dition in the matter of architecture. An old shoe, a mitten, a torn hat, a skull, or a neat house with piazza and overhanging eaves are all the same to it. With other birds the case is different and the imitation fence-post or hollow limb must be in place before the first Bluebird, Tree Swallow or Chickadee thinks of mating, while I firmly believe that the Woodpeckers and Screech Owls engage their quarters the fall before and occupy them on winter nights.—M. O. W.

Entangled in the Burdock

The following verses, by one of America's best-known poets, were inspired by the photograph of a Goldfinch which lost its life by becoming entangled in a burdock, which appeared in BIRD-LORE for December, 1906.



AMERICAN GOLDFINCH ENTANGLED
IN BURDOCK

Photograph by B. S. Bowdish

How could'st thou, O my Mother,
To whom we all belong,
Betray our little brother
Who had the wings and song?

For Nature's self betrayed him,
And did with food entice;
And none there was to aid him
To slip the thorny vise.

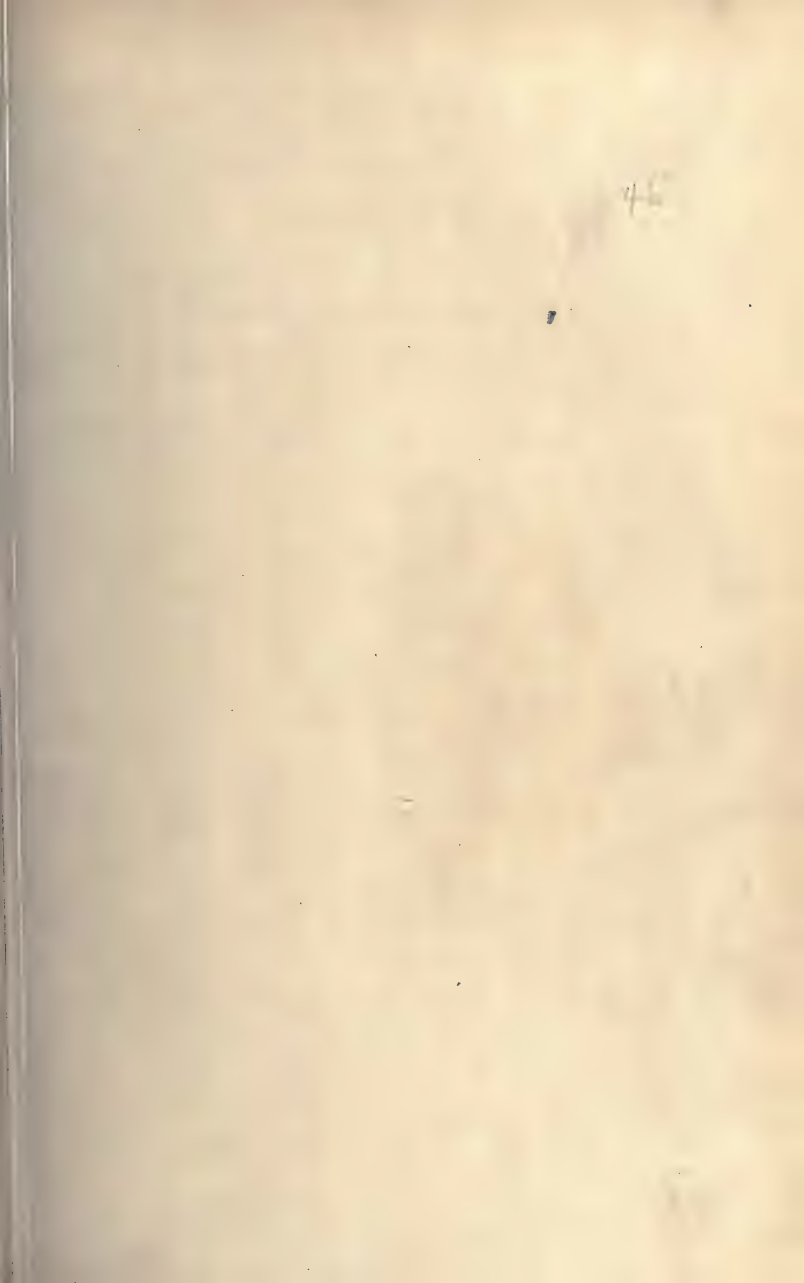
The golden wild Canary—
The child of light and air—
Blithe-hearted, sank, unwary,
Upon the burdock's snare!

And there he strove and fluttered
Through all the long, bright day;
And many a wild cry uttered
Ere Life took flight away!

At last (oh, piteous thing!—
It is for this I weep),
With head beneath his wing,
He tried to go to sleep!

How could'st thou, Nature—Mother,
To whom we all belong—
Betray our little brother
Who had the wings and song?

—EDITH M. THOMAS.





SNOWFLAKE

Order—PASSERES
Genus—PASSERINA

Family—FRINGILLIDÆ
Species—NIVALIS

(ONE HALF NATURAL SIZE)

THE SNOWFLAKE

By MABEL OSGOOD WRIGHT

The National Association of Audubon Societies

EDUCATIONAL LEAFLET NO. 30

No matter what the weather may have been in December and January, February is sure to be a month wherein winter rings all the changes from soft days, rain, sleet storms to deep, trackless, obliterating snows. If the winter has been clement and open at the beginning, the insect-eating, resident birds—Nuthatches, Woodpeckers, Chickadees, etc.,—will be numerous, but if February lives up to its reputation of

“When the days begin to lengthen,
The cold begins to strengthen,”

we must rely upon the brave seed-eating birds to be our companions until the first courageous spring migrants appear.

All winter we have had with us members of the family of **His Kindred** *Fringillidae* or Finches and Sparrows that have either come in lingering flocks or merely as birds of passage: the Goldfinch in his sober winter dress, the stocky Purple Finch, the handsome White-throated Sparrow, the sociable Tree Sparrow or Winter Chippy, chiefly distinguishable by its larger size from the gentle little summer resident of the hair-lined nest; the Slate-colored Junco, trim of figure, dressed in clear gray, with sleek white vest and identifying light beak. In addition to these have come perhaps, if cone-bearing trees are near, a mixed flock of American and White-winged Crossbills—those strange birds of varied red plumage, beaks crossed at the tips, and clear metallic call notes.

In spring we may predict with reasonable accuracy the coming of the birds that are summer residents, as well as the time of passage of the migrants that nest further north, but the comings and goings of the winter birds are fraught with entire uncertainty. Several days will pass when my lunch-counter in the old apple tree, with its sloping roof of old wood that keeps off wet, will be without a single visitor; then, without rhyme or reason, the birds will swarm about it like bees about buckwheat,—birds of all sizes, from the Blue Jay to the merry little Kinglets. Weather, rather than individual will, seems to be the guide and motive power of the winter birds, and this weather influence works in a wholly different way in winter than in spring. Fair weather draws the birds of spring to us, but it is to the storm-clouds and fierce winds of north and east that we owe a glimpse of the rarer winter birds that make their summer homes in arctic regions.

Five birds of the north there are that I never expect to see during an open winter—the Snow Owl, Pine Grosbeak, Redpoll, the rare Lapland Longspur who leaves the print of his long hind toe in the snow to tell of his coming, and the Snowflake,—all but the Owl belonging to the great family of Finches and Sparrows. When these birds appear we may know that even if we have had but a light snowfall, there have been great Arctic storms that have passed off perhaps seaward, scattering the birds before their fury.

Of all these birds of the wind, the Snowflake is the most winning, allowing us to come near him as he feeds, and venturing close to our houses, barnyards and hayricks in search of food, sometimes to the very doorstep itself where, a few years ago, I saw a small flock of seven feasting upon the waste seeds that had been thrown out from the Canary's cage.

Few birds have more appropriate and descriptive names than this, who was beforetimes called the Snow Bunting, and in the minds of poets and many others confused with the Gray Snow Bunting, now called the Slate-colored Junco by the Wise Men to stop confusion, as the Junco has kindred in the West and South.

After the snowfall has ceased and we look across the open toward the wooded strips to see the fanciful shapes the trees have taken, a slight motion draws the eye toward a protected hollow where the bent and broken stalks of mullein, ragweed and wild sunflowers still hold their own above the snow.

What is it,—brown leaves drifting about? Impossible! The only uncovered leaves are those few that cling dry and rustling to the young beeches and oaks, refusing to let go until the swelling buds of March actually break their grip.

Work your way carefully toward the nearest shelter, field- or opera-glass in hand, and you will see not leaves, but a flock of plump, compactly built birds, a little larger than the familiar English Sparrow. At first you will have difficulty in separating them from the snow for they are all white underneath and have much white on the neck, head, wings and tail. Such colors as the Snowflake wears, is, when seen close, a deep rust-color, but it is so mixed with the white that at a short distance the plumage takes on all the dead-leaf hues of fawn and russet, as if the birds were themselves animated leaves frolicking with the blowing snow. When they take to wing they give a sharp call note somewhat like the second syllable of the call of the Scarlet Tanager. This is the Snowflake's winter dress; in summer he wears clear black and white.

The Snowflake is a summer resident of the Arctic Circle from which, in its winter travels, it visits Europe and eastern Asia as well as the United States, and may therefore be classed with the small group of circum-
His Country polar birds. They therefore nest in the extreme north where the tree growth is so stunted that the region is called "the Land of Little Sticks." In winter it is to be found throughout New England and irregularly in the middle states.

The Snowflake belongs to the ground-loving portion of its tribe, if such a distinction is allowable. Not only does it nest on the ground, but as far as we may judge from its winter habits, spends most of its time there when not in flight. I doubt if it even roosts in trees, for those that I have seen hereabouts took shelter after feeding, either in a brush-heap or in the edges of a corn-stack which always affords shelter for birds that prefer to squat rather than perch, at least in winter.

The Longspur clings to the ground in this same way, and the Horned Lark also, and we can easily see that it would be a matter of heredity in species that are natives of countries offering such poor perching accommodations in the matter of trees.

Dr. Coues thus describes the nest: "The few nests of the Snowflake that I have seen were built with a great quantity of a kind of short curly grass which grows in the Arctic regions, mixed with moss, the whole forming a very substantial structure, with walls an inch or more thick, and a small, deep cavity. This is warmly lined with a quantity of large feathers from some water-fowl. They are built on the ground, often covered and hidden by tussocks of grass or even slabs of rock. The eggs are exceedingly variable in color as well as size.

The ground is white or whitish, sometimes flecked all over with neutral tint shell-markings overlaid by deep brown spots. . . .

In other cases, we have a heavy wreath of dull brown blotches around the larger end. Those who have seen the Snowflake at home in summer speak highly of its vocal ability, and have also a good word for the fidelity of the bright bird to its mate and its young."

To us who may only see the Snowflake in its wanderings, its chief interest and importance is that its coming brings a bit of novelty to the winter landscape, and that it is one of the most furtive of the great tribe of Weed Warriors that, through the very necessities of its existence, consumes vast numbers of weed seeds before the growing seasons quickens them to life. The careless land-owner for the lack of a few days or even hours spent with a scythe in his pasture and old fields, invites the company of weeds that will not only choke his crops but rob the very soil of its fertility. Then comes winter, and while the man withdraws into his house, and in storms goes out only to feed the cattle, the band of feathered workers that are a great part of Nature's scheme of economics, silently appear, and without confusion fall to their allotted tasks: The Cross-bills and Pine Grosbeaks, through their feeding, to plant evergreen forests; the Waxwings to establish the pointed cedars on bare hillsides, drape the by-ways with bittersweet and mesh the thickets with catbriar; the Myrtle Warblers to spread the persistent greenery of the bayberry, together with

many other berry-bearing bushes; while the gentle Snowflakes in the hollows, always keeping close to the ground, glean from the broken weed-stalks that have been overlooked by their kinsmen in the earlier season of plenty.

In addition to this seed food, the Snowflake is known to eat the larvæ of small insects and minute shell-fish that attach themselves to the leaves of water plants and rushes (upon the seeds of which they also feed), so that there is reason in this varied diet for the usual plump appearance of the bird.

Surely, if any bird could be expected to receive hospitable treatment at human hands, one would think it would be given to these brave children of frost and snow, the Snowflake and Slate-colored Junco, yet myriads of these have fallen

Destruction of Snowflakes into the snares of the trappers for the sake of the mere mouthful of meat they furnish. Nuttall tells of the way in which they

were shot every winter on their return to the Scottish Highlands, their compact manner of flight making them easy marks for the fowler; while in other countries of Europe they were systematically caught in traps, when, after being kept and fed upon millet until they had recovered from the fatigue of their long flight, they became in flesh and flavor the rivals of the famous Ortolan. A man from our own hill country who was a boy twenty years ago, told me a few days since, as we stood watching the Juncos picking up mill-sweepings from under my feeding-tree, that "at home we always used to catch lots of those Gray Snowbirds every winter, in a box-trap. Good eating they were too—'bout as sweet and tasty as Reed-birds (Bobolink). T'would be a poor winter we boys didn't get a couple o' hundred on em. Since the blizzard year (1888) they sort o' shied off, and now that the law has set plump down on every sort o' snarin, the country fellers either has to take bad risks or do with pork meat in winter. No more Partridge runs and rabbit falls, and gray squirrels can sas yer and fire acorns at yer all they like after December and yer can't shoot back!"

It was a new idea to me, this recent snaring of the welcome winter birds that so many of us labor to protect. Alack! behind them the sweep of the blast to which so many succumb from exhaustion, with the haven of food and promised shelter sometimes leading to a trap, how much greater must be the vital power of Nature than all the inventions of man, or else there would be no more Juncos or Snowflakes to fall from the very storm-clouds themselves and beg our hospitality.

SNOWBIRDS

Along the narrow, sandy height
I watch them swiftly come and go,
Or round the leafless wood,
Like flurries of wind-driven snow,
Revolving in perpetual flight,—
A changing multitude.

Nearer and nearer still they sway,
And scatter in a circled sweep,
Rush down without a sound:
And now I see them peer and peep
Across yon level bleak and gray,
Searching the frozen ground.

Until a little wind upheaves
And makes a sudden rustling there,
And then they drop their play,
Flash up into the sunless air,
And, like a flight of silver leaves,
Swirl round and sweep away.

—ARCHIBALD LAMPMAN.

The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by WILLIAM DUTCHER

Address all correspondence, and send all remittances for dues and contributions, to the National Association of Audubon Societies, 141 Broadway, New York City

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\$5.00 paid annually constitutes a person a Sustaining Member
 \$100.00 paid at one time constitutes a Life Membership
 .000.00 paid constitutes a person a Patron
 .000.00 paid constitutes a person a Founder
 .000.00 paid constitutes a person a Benefactor

FORM OF BEQUEST

I do hereby give and bequeath to THE NATIONAL ASSOCIATION OF AUDUBON SOCIETIES FOR THE PROTECTION OF WILD BIRDS AND ANIMALS (Incorporated), of the City of New York.

Proposed Legislative Work in 1908

MASSACHUSETTS.—A bill has already been prepared to make the closed season for Ducks, Geese, Brant and Swan and the Shore Birds to commence January first. It will be introduced in the name of the Massachusetts Audubon Society. A similar bill will be introduced in the Rhode Island Legislature by the Audubon Society of that state. The field agent and lecturer of the National Association, Mr. Edward Howe Forbush, has these important bills in charge and he has already done a large amount of preliminary work by lectures, interviews and through the press. He

reports a healthy and growing sentiment in favor of this important movement. All citizens of Massachusetts and Rhode Island, irrespective of whether they are members of the Audubon Societies or not, should give all their influence and support to these bills. The time has arrived when prompt and drastic action must be taken to preserve the water-fowl and shore birds, else they are doomed to a sure and rapid extermination. The true sportsmen of these two states should work for the passage of the bills in the most aggressive manner in order to counteract the efforts of those shooters who still selfishly desire to kill water-fowl and shore birds when they are on the northward migration to the breeding grounds. One of the basic principles of the National Association is "No Spring Shooting." Let this be the rallying cry and success for the bills is assured.

NEW YORK.—Among the many admirable recommendations in Governor Hughes' message to the 1908 Legislature, none was of greater importance than that referring to game laws. "I recommend that the Forest, Fish and Game law be carefully revised," and "I recommend the enactment of a License Law." The present game law of the state is a mass of contradictory sections and this Association has strongly advised their revision. This, however, cannot be done in a satisfactory manner unless the advice and scientific knowledge of an ornithologist and mammalogist is secured. The executive officers of the National Association will watch with interest the results of the important suggestions of Governor Hughes and will be prepared to use all of its influence to further the passage of a revised game law and also a license law. The New York Audubon Society will likewise take active measures to procure such desirable improvements for bird and animal protection.

NEW JERSEY.—A number of important conferences have already been held in this state for the purpose of formulating

plans for the passage of an anti-spring shooting law. Readers of BIRD-LORE will recall the unsuccessful attempt made in the Legislature of 1907. This year the organization backing the proposed bill is much stronger than it was last year, further, there is a growing public sentiment in favor of the abolition of spring shooting. The Affiliated Sportsmen's Clubs, the Audubon Society and the La Rue Holmes Nature Lovers League will all do yeoman's service to secure up-to-date game laws in New Jersey to replace the farcical statutes now in force.

MARYLAND.—There is a probability that some necessary changes in the game laws of this state will be attempted at the present session of the Legislature, but the plans are not yet advanced far enough to report on.

OKLAHOMA.—In this new state the model law has been introduced in the Legislature, which is now holding its first session. It is House Bill No. 93. It is being pushed in the most energetic manner and will undoubtedly become a law, as there is a strong sentiment in the state for the protection of birds. Bills to establish a state warden-system, hunting licenses, close seasons, etc., have also been introduced and are receiving deserved support. The citizens of the youngest of the sisterhood of states evidently propose to start out right in the matter of bird and game protection.

Across the Border

The Prince Edward Island Fish and Game Protection Association is doing excellent work and is rapidly growing in size. Their last quarterly report indicates that the Ruffed Grouse which was nearly extinct is becoming quite numerous as a result of special protection for two years. "Posters were put up through the province cautioning people against killing Partridge and offering a reward for information leading to the conviction of any person violating the Game Act." The following is of special interest. "The work the

Association is accomplishing has attracted the attention of protectionists in the United States and is being watched with keen interest. The National Association of Audubon Societies in the United States has presented the secretary with forty-four valuable colored lantern-slides, illustrative of bird life, to assist him in his work of educating the people as to the economic value of the birds, and in showing the importance of strictly protecting these tireless aids of the farmer.

"The whole country is awakening to the vast importance of this branch of the Association's work. Four districts have already asked us to send down the secretary to lecture on this subject, offering to provide the hall and do all the advertising free of charge."

Big Game Protection in Texas

State Game Warden Lorange recently arrested for killing antelope three persons who plead guilty and were fined. This is the first case ever recorded in the State for killing antelope, although it has been unlawful for the past fifteen years to kill them. This is one of the results of the long and expensive campaign conducted by the Texas Audubon Society, which was financed by the National Association, in the Legislature in 1907 for the establishment of the state game-warden system. When this new Commission gets thoroughly organized, it is confidently expected that the illegal shipment of water fowl from Texas to northern and eastern markets will be prevented.

Two New Audubon Societies

Within the past three months Audubon Societies have been organized in Mississippi and Alabama. The former through the efforts of our field agent, Mr. Kopman, and the latter by the joint work of Game Commissioner Wallace and Mr. E. C. Holt, who was elected its first president. Aggressive work is proposed by both of these new organizations, especially along educational lines. Mr. Andrew Allison,

secretary of the Mississippi Society writes concerning its organization as follows:

"The Mississippi Audubon Society was organized in Jackson, Mississippi, on November 9, 1907, as a result of faithful work on the part of the National Association's special agent, Mr. H. H. Kopman. The attendance at this initial meeting was not large, but the important classes in bird-protection work were all represented—women, farmers, sportsmen, teachers and lovers of birds just because they are birds. Addresses were made by Prof. T. Gilbert Pearson, Secretary of the National Association; Prof. Geo. E. Beyer, of Tulane University, New Orleans; Mr. H. H. Kopman, and others. The officers elected are: Col. T. M. Henry, President; Dr. W. H. La Prade, Vice-President; Andrew Allison, Secretary, and Miss Frances Park, Treasurer. "Being delayed beyond the proper number of BIRD-LORE for reports, this brief sketch is somewhat unofficial, and statistics are not in order; but I must not omit to mention the excellent showing made by the public school of Ellisville, which turned in a membership roll of over one hundred children and nine teachers; very far surpassing any other school system in the state, and proudly carrying off the highest award donated for the purpose by the National Association; two recent and excellent bird books. The State Superintendent of Education, Mr. J. N. Powers, is a charter member, and promises his hearty coöperation in pushing the work in the schools.

"There is much to be done, for a prominent ornithologist has called our state 'one of the best neglected'; but progress is visible, and we hope to report fair results at the conclusion of our first year."

Another Audubon Patrol Boat

In the annual report for 1906, BIRD-LORE, volume VII, page 336, our field agent and lecturer, Mr. Finley, gave a graphic account of the wonderful bird life on Klamath lake, Oregon. Such large numbers of Grebes, Gulls, Terns, Cormorants and Pelicans breed, and the lake is

such a resort for Ducks and other species of birds, that, in order to give the most efficient protection, it was found necessary to furnish the warden, Mont. E. Hutchison, with a power boat, to enable him to patrol the lake and thus prevent the slaughter of the non-game birds at any time and the Ducks and other game birds during the closed season. The man behind the gun and his companion "Towser" are always on duty when the lake is free from ice and they are the means of saving thousands of birds that would otherwise be sacrificed, some for millinery ornaments and others from market shooters.

Valuable Club Work

The first annual report of the Committee on Bird Protection of the Forest and Field Club of Belmont, Massachusetts, is given below. The results secured are so very excellent that the plan is recommended highly for adoption by field clubs and village improvement societies in all parts of the country. It is astonishing how many valuable birds can be saved by the

work of a few unselfish and public spirited persons who will devote a few moments of their spare time to this movement:

"A new step in bird protection has been adopted by the Forest and Field Club of Belmont. A committee of three were appointed, who were empowered to use any money they might raise, as well as one-half of the surplus money in the club's treasury, toward the protection of birds in Belmont. Every person who owned any land in the shooting district was requested to sign the following paper: 'I, the undersigned, will allow the Forest and Field Club of Belmont to post notices prohibiting shooting and trapping upon my grounds, and will allow their game warden to enforce these orders, on the condition that I thereby incur no expense.' As every paper was cheerfully signed, the club was empowered to post upwards of two square miles of woodland and pastures. An Italian, interested in bird protection, translated the following notice into the proper dialect of his native language: 'No shooting or trapping allowed within these



'GREBE' AUDUBON PATROL BOAT NO. 5 WITH WARDEN HUTCHISON

NO SHOOTING OR TRAPPING

ALLOWED WITHIN THESE GROUNDS

The penalty for each violation of this order is a fine of not more than \$20.00.

Defacing these notices is prohibited by law, penalty not more than \$25.00.

\$5.00 REWARD will be paid for information to the Chief Warden of the Forest and Field Club of Belmont, which will lead to the arrest of any person violating these orders.

AVVISO

La Caccia ^{od} _{il} Trappolare

IN QUESTO LUOGO

E ASSOLUTAMENTE PROIBITO

Per ogni caso di violazione di questo ordine la massima multa sarà di venti dollari.

Distruggere o scancellare questo ordine sarà punito con massima multa di venti cinque dollari.

La Ricompensa di Cinque Dollari
e offerta alla persona che darà informazione al Capo Custode del Forest and Field Club di Belmont, che garantirà l'arresto di chi infringe questo ordine.

grounds. The penalty for each violation of this order is a fine of not more than twenty dollars. Defacing these notices is prohibited by law, penalty not more than twenty-five dollars. Five dollars reward will be paid for information to the Chief Warden of the Forest and Field Club of Belmont, which will lead to the arrest of any person violating these orders.' One thousand cloth copies of this, printed in both English and Italian were purchased with money which was raised by subscription. These were posted over the entire shooting district and ten volunteer wardens were appointed to enforce them.

"This method has proved very successful, so it is hoped other towns will adopt a similar plan. Two or three energetic persons could post their town likewise in two months. This Committee will send a sample poster to any person who will volunteer to start a similar movement in his town. Address all communications to Samuel Dowse Robbins, Chairman, Lock Box 25, Belmont, Massachusetts."

A New Bird Reservation

The explorations made for the National Association of Audubon Societies last summer by Mr. H. H. Kopman, on the coast of Louisiana ((See BIRD-LORE IX, 1907, pages 223-240) having shown that East Timbalier Island was the seat of large colonies of birds the United States government, in response to the request of the Association has declared this island to be a "Reservation for the protection of native birds" as will be seen by the map on the following page.

A Well-protected Public Reservation

The following letter from Dr. James A. Carroll, Superintendent of the Indian Reservation at Mescalero, New Mexico, shows such an intelligent appreciation of the necessity for bird and animal protection and such an active enforcement of his ideas that it is a pleasure to present an outline of his work as he reports it:

"I am indeed, quite interested in the great work now being conducted by the National Association. My interest extends even beyond the protection of wild birds and animals—to the protection of fish as well. And I'll try to show you that this interest is more than a fleeting sentiment or a pretty theory; that I've demonstrated it in a practical manner.

"This reservation embraces an area of very nearly 475,000 acres of land. 'Tis a mountainous country, heavily timbered, fairly well watered, and is a natural retreat for the wild life of this section. Bear, deer, lions, wolves, cats, coyotes, badgers, skunks, squirrels, turkeys, pigeons, ravens, doves, quails and innumerable small birds are found here. There are two beautiful streams on the reservation and these are teeming with trout. The edible game I found it necessary to protect, and I did it in this way: I limited the hunting season to two months and a half—from November 15 to February 1—and kept the Indians' firearms under lock and key the balance of the year, and I required employees and others to observe this regulation. In this way does with young fawns have not been killed; nor have turkeys hens been killed, leaving broods of young to die. I've also exercised much care in issuing hunting permits to outsiders. As a protection to the fish, guards are employed, who patrol the streams and admit no one unless he presents a permit. These regulations have been operative for four years, and the increase in game and fish is simply wonderful. No effort is made to protect those wild animals that are a menace to flocks and herds; and, as for such birds as are not edible, they are never disturbed."

Qualifications Necessary for a Game Warden

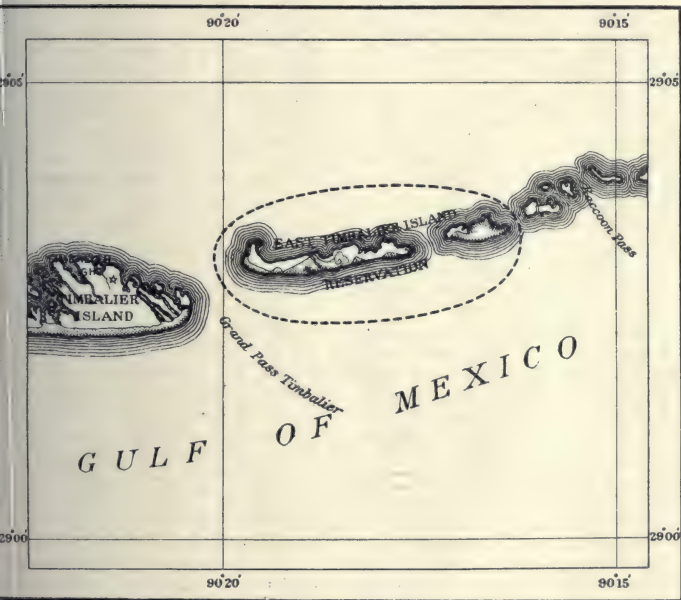
One of the recommendations advanced by this Association in its last annual report was "Civil Service in the appointment of game wardens; they should pass a satisfactory examination showing fitness for the position." What constitutes fitness?

EAST TIMBALIER ISLAND RESERVATION

For Protection of Native Birds

LOUISIANA

Embracing the Island segregated by broken lines and designated
"East Timbalier Island Reservation"



DEPARTMENT OF THE INTERIOR

GENERAL LAND OFFICE

Richard A. Ballinger, Commissioner

Diagram attached to and made part of the order dated
December 7, 1907

The warden should not only be strong and in perfect health but must be possessed of bravery, for he is frequently in danger, especially when trying to arrest aliens. Moreover, he should have such an interest in nature that he will be lifted above the plane of a hired servant and will get some of his compensation in the pure enjoyment of time spent in the field and woods. Political service or affiliations should have no weight in the appointment of wardens, in fact, when a selection is being made, this question should not be asked or considered. To be properly qualified, a warden should be able to identify all of the common birds of his section—the game birds as well as the non-game birds. A carpenter or bricklayer who knew no more of his craft than the ordinary game warden of today knows of birds would never be able to get work. They must be skilled workmen or they are relegated to the class of laborers. Why should it be otherwise with a game warden? In these days of bird books and leaflets, many of them profusely and correctly illustrated, it should be easy for a warden of ordinary intelligence to qualify by passing an examination showing that he had a knowledge of birds as well as their habits and could make correct identifications in the field and especially when called upon to give expert testimony in courts when the identity of birds was in question. Recently, some aliens were arrested near Jamaica, New York, and a warden was called in to testify in the case. He gave the following testimony, which shows how well qualified he was for the place occupied. Six Hermit Thrushes and a couple of Song Sparrows had been shot. A police officer testified they were 'Brown Thrushes'. The game protector was called as an expert on birds and testified that the larger birds were "Brown Thrushes", sometimes just called "Thrushes" and that the other birds were "Song Sparrows" or "American Goldfinches." There was an amusing cross examination; "What is the difference

between a Sparkling (probably Starling was meant) and a Song Sparrow or American Goldfinch." The warden replied "that a Goldfinch went teet-teet-teet; while a Sparkling had a different call." One of the judges said they wished to know the difference in appearance, to which the expert replied, "Well, ah, ah, ahem, the Goldfinch is like these birds here, (pointing to the smaller ones) while the Sparkling is a little larger and browner."

Such a case as the above makes bird protection a farce and the work of the Audubon Societies doubly hard. Perfect service will not be attained until the men employed as state game wardens can inform the inquiring citizen of the name of a bird and also what its relations to agriculture and forestry are, and can talk intelligently and interestingly on the subject. Such men can be found; one has lately been appointed in Connecticut.

A Wild Turkey Case

Our field agent, Mr. Kopman, is not only educating the public about the value of birds, but is demonstrating that the non-sale law in Mississippi must not be violated. He recently preferred charges against a prominent firm of restaurateurs in Jackson for exposing for sale and advertising that Wild Turkey would be served. At the trial it was impossible to prove that the portion served to Mr. Kopman was from a wild bird. Judge Thompson in acquitting the firm delivered the following charge to the defendants: "While the evidence is insufficient to warrant a conviction, the phase of the case that perplexes me is that a firm of the reputation of ———— could afford to advertise the selling of anything they were not prepared to furnish or to admit having furnished." Judge Thompson further added "that the restaurants must comply with the game laws, and that they should not under any circumstances render themselves liable to another affidavit."



1. HAMMOND'S FLYCATCHER.

2. WRIGHT'S FLYCATCHER.

3. GRAY FLYCATCHER.

4. BUFF-BREASTED FLYCATCHER.

5. WESTERN FLYCATCHER.

Bird = Lore

A BI-MONTHLY MAGAZINE

DEVOTED TO THE STUDY AND PROTECTION OF BIRDS

OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Vol. X

MARCH — APRIL, 1908

No. 2

The Home-Life of the American Egret

By FRANK M. CHAPMAN

With photographs by the author *



"GRAVELY THE PARENT STOOD
REGARDING ITS YOUNG"

TWENTY years have passed since I saw in Florida my first Egret, but I retain a clear-cut mental picture of the scene in which the bird's snowy plumage shone against a darkly wooded background with surprising whiteness. It seemed an ethereal creature, too pure for earthly existence, a veritable Bird of Paradise. Nor has subsequent familiarity in any way decreased this impression of a certain angelic quality,—due no doubt to the dazzling purity of the bird's plumage as well as to the charm of its haunts.

It was the large Egret (*Herodias egretta*) I saw. The Snowy Egret (*Egretta candidissima*) is a daintier, more exquisite bird, but, in nature, cannot always be satisfactorily distinguished from the young of the abundant Little Blue Heron, while its much smaller size makes it a far less impressive figure in the landscape than its stately relative. Furthermore, the Snowy Egret's recurved plumes are more highly prized than the long, straight 'Aigrette' of the larger species, and even twenty years ago, it was a comparatively rare bird in Florida. Today it is on the verge of extinction.

My experiences, therefore, have been with the larger Egret. Long have I sought to find it at home under conditions suitable for reproduction in the

*See, also, Photographs in BIRD-LORE for December, 1907.

series of 'Habitat Bird Groups,' in the American Museum of Natural History. A few nests were discovered here and there, but always, when a rookery ('heronry' is not used in the South) of promising size was reported, the plume-hunters arrived first and word came that the "long whites have all been shot out."

Thus year by year the Egrets have decreased in number. I miss the white gleam of their plumage in the dark cypresses and over the brown marshes. With them has gone one of the most distinguished figures of the Florida wilds. The state, learning the value of the treasure of which she has been robbed, has passed



COLLECTING A CYPRESS TREE FOR THE EGRET GROUP IN THE
AMERICAN MUSEUM OF NATURAL HISTORY

stringent laws prohibiting the killing of Egrets. So, too, she has passed laws against pick-pockets, but just so long as there are pockets worth picking there will be some one to pick them, and just so long as Egrets' plumes are worth their weight in gold there will be some one to supply them, until, a passing fancy gratified, the last plume has found its way from the bonnet to the ash-barrel.

Without one promising lead to follow, I had virtually abandoned the Egret hunt, when from an unexpected quarter word came of an Egret rookery creditable to the days of Audubon. It appears that, when a vast territory was acquired as a game preserve by a club of sportsmen, it contained a few Egrets, survivors of a once flourishing colony. After seven years of rigid protection, they and their

progeny form so conspicuous an element of local bird-life that, on the evening of May 7, 1907, as I reached the region in which they lived, I saw them in dozens flying toward the still distant rookery.

The return at nightfall of birds to their nests, or to a certain roosting-place, is possessed for us of that interest which is attached to all the intelligible actions of animals. The knowledge that the creature has a definite plan or purpose seems to emphasize our kinship with it. So we mark the homeward flight of Heron or of Crow, and, knowing whither they are bound, travel with them in fancy to the journey's end. This has been a fatal habit for the Herons. It mattered little how secluded was the rookery; the hunter found it simply by following their line of flight.

My way to the home of the white-plumed birds was less direct. For hours a little home-made tug, with a swelling wave at her bow, took me through a succession of bays, canals, cut-offs and serpentine creeks, frightening the Gallinules and Blackbirds in the reeds, and surprising an occasional alligator on his favorite mud bank.

A night's rest, and in the morning the journey was resumed through park-like pine forests and under the moss-hung live-oaks, with every tree and plant by leaf and blossom, and every bird by plumage and voice, proclaiming the sweetness, beauty and joy of May. Ten miles of spring's pageant brought me to the moat of the Egrets' stronghold. Here I entered a boat, to pass through an apparently endless flooded forest.

There are delights of the water and delights of the wood, but when both are combined and one's canoe-path leads through a forest, and that of cypress clad in new lace-like foliage and draped with swaying gray moss, one's exultation of spirit passes all measurable bounds. No snapping of twigs or rustling of leaves betrays one. We paddled so easily, so noiselessly, that we seemed as much inhabitants of the place as the great alligators that sank at our approach.

The Fish Hawks whistled plaintively, but settled on their nests as we passed below them; the Wood Ducks led their broods to the deeper woods; Pileated



LOUISIANA HERON ON ITS NEST

and Red-bellied Woodpeckers, Crested Flycatchers, Tufted Tits and glowing Prothonotary Warblers, at home in holes in the cypress; Parula Warblers weaving their cradles in the Spanish moss,—all accepted us as part of the fauna, and it was not until we reached the first dwellings of the rookery that our presence caused alarm.

Here, at the tops of the tallest cypresses, seventy to one hundred feet from the water, the Great Blue Herons had built their broad platforms. With protesting squawks, they stretched their legs, folded their necks and took to the air, leaving their nearly fledged young to peer over the edge of the nest at the disturbing object below. With no less concern, I looked at the disturbing object above. If the Egrets had chosen similar nesting sites they could be photographed only from a balloon.



"THEY CAME CAUTIOUSLY TO THE MORE DISTANT BRANCHES"

Beyond the Great Blue Herons, was a settlement of the singularly marked Yellow-crowned Night Herons. Their nests were within fifteen feet of the water, but they slipped away, so quietly that only close watching showed them disappearing through the trees beyond. For two miles we paddled thus in a bewildering maze of sunlit, buttressed cypress trunks with shiny, round-headed 'knees' protruding from the water, and with every branch heavily moss-draped. The dark waters showed no track, the brown trunks no blaze. We seemed to be voyaging into the unknown.

Finally, the environs were passed and we now approached the most densely populated part of the rookery. Thousands of Louisiana and Little Blue Herons left their nests in the lower branches and bushes, their croaking chorus of alarm punctuated by the louder more raucous squawks of hundreds of Egrets, as they

flew from their nests in the upper branches. It was a confusing and fascinating scene, an admirable climax to the passage through the weird forest.

For a time, I was content to sit quietly in the boat and revel in the charm and beauty of the place, my enjoyment unmarred by the thought that at any moment Satan, in the guise of a plume-hunter, might enter this Eden.

The Little Blue and Louisiana Herons nested at an average height of six to eight feet. One bush held no less than thirty-two nests, all of which contained eggs, few young of either species having yet been hatched. The Egrets nested at an average height of forty feet. Eggs were in some nests, while in others there were nearly fledged young. While far less shy than I had before found them, the birds were still abundantly wary, and obviously could be observed to advantage only from concealment. After some search, a group of nests was dis-

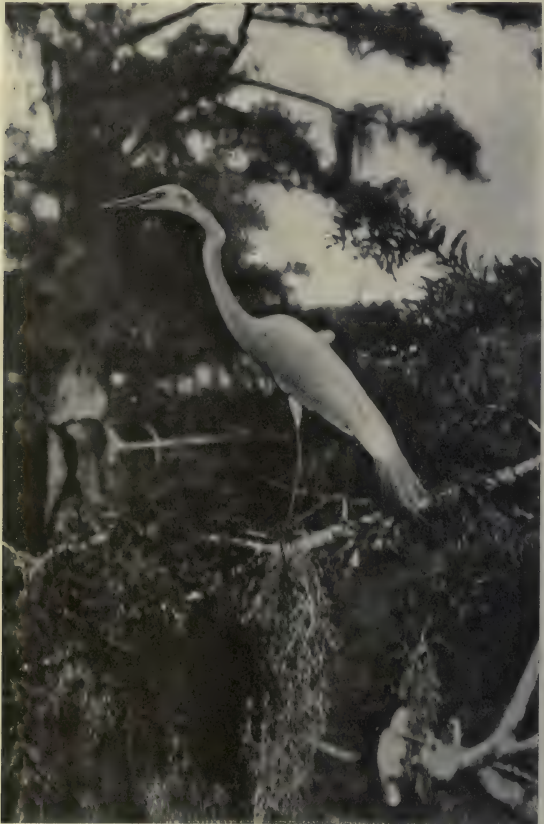


"FLY TO AND FRO WITH CURVED NECK AND STREAMING PLUMES"



A SUDDEN TURN

covered which it was believed could be studied and photographed from a neighboring tree, distant some thirty feet. An umbrella blind of pale green cloth was therefore placed in the tree at a height of forty-five feet, and liberally draped with Spanish moss. It was arranged to fall over a limb which, for



EGRET APPROACHING ITS NEST

The train of closed plumes reaches several inches beyond the tail. Bill retouched by Bruce Horsfall several hours during each of the three succeeding days, served as the perch from which my notes and photographs were made. I have had more comfortable seats, but few that were so enjoyable. From the concealment of the same blind, it had been my fortune to watch Flamingoes, Pelicans and many other



EXPECTATION

Young Egrets awaiting the coming of the parent with food

ground-nesting birds at close range ; but never before had I attempted to enter a bird colony in the tree tops, and the experience was as exhilarating as it was novel. The Little Blue and Louisiana Herons soon returned to their nests below, the former noisy and quarrelsome, calling at each other notes which sounded strangely like *tell you what, tell you what*, the latter less demonstrative and more quiet. The Egrets did not accept the situation so readily. Seven pairs were nesting in the trees near me. Some had eggs, others young birds in various stages of development. Flying to and fro, with curved neck and streaming



REALIZATION—EGRET FEEDING YOUNG

plumes, the parents inspected the blind for some time before they ventured to alight in the home tree. Then they came cautiously to the more distant branches, there to remain indefinitely, while uttering a protesting, rapid *cuk-cuk-cuk* with the regularity and persistence of a metronome. Their strong desire to return to their nest was expressed in an alertness which led them to make frequent changes of attitude. In a large series of pictures of waiting birds no two have that wonderfully expressive neck in the same position. It is remarkable how the pose of this member affects a Heron's appearance.

Doubtless, the young birds were not a little puzzled by the unusual reluctance of their parents to administer to their wants. In vain they uttered their frog

like *kek-kek-kek*, and stretched their necks hopefully. The old birds were not assured. So the young resorted to their customary occupations of leg- or wing-stretching, or yawning, or preening a brother's or sister's feathers, picking at imaginary objects here and there, all good exercises for growing birds. The larger ones made little journeys to the limbs near the nests, the neck taking a different curve with every movement, and expressing every emotion from extreme dejection to alert and eager expectancy. Finally, as the old birds were convinced that the blind was harmless, their reward came. With harsh, rattling notes and raised crest one of the parents alit near the nest. Its superbly threatening



EGRETS DISPLAYING THEIR PLUMES

From the Habitat group in the American Museum of Natural History

itude was clearly not alarming to the young birds, who welcomed it by voice and upstretched, extended neck. Gravely the parent stood regarding its young, while its crest dropped and its pose relaxed. Then, as it stepped to the edge of the nest, it lowered its head, when its bill was immediately seized by one of the youngsters. The young bird did not thrust its bill down the parental throat, nor was the parent's bill introduced into that of its offspring. The hold of the young bird was such as one would take with a pair of shears, if one were to attempt to cut off the adult's bill at the base. In this manner the old bird's head was drawn down into the nest, where the more or less digested fish was disgorged, and at once devoured by the young.

Three days passed before pictures were secured of this singular operation,

which, so far as I am aware, has not been before described or photographed. Doubtless, it is more pleasing to the young Herons than to others less materially concerned, and I confess that I prefer to recall the Egrets flashing white against the dark water, gleaming like snow on the sky, or raising their plumes in dainty coquetry, as the bird on the nest greets the approach of her partner. When spring returns, thanks to the vigilance of their guardians, I can so recall them, and with the assurance that new homes have been added to the settlement in the cypresses.

The Background of Ornithology

Read before the twenty-fifth Congress of the American Ornithologists' Union

By SPENCER TROTTER, Swarthmore College

"**T**HAT strange mystical sense of a life in natural things, and of man's life as a part of nature, drawing strength and color and character from local influences, from hills and streams and natural sights and sounds."

Such are Walter Pater's words in an attempt to analyze the genius of Wordsworth and his poetry. But these influences are not peculiar to the poet and the artist. Every one who has come under the charm of nature knows full well what Walter Pater means by "that strange mystical sense of a life in natural things," that "drawing strength and color and character from local influences." To the scientific mind, this may not have the same subtle significance, the same sense of close relationship that marks the poetic mind; for the scientific attitude toward nature is less subjective than that of the poet. And yet, in a way, we are all poets, and much of the joy of our work in the field of science springs from that subconscious self that lies deep in the world of natural things.

It is the happy province of ornithology to have in its subject matter a group of beings at once engaging, appealing to the imagination, and varied in the charm evoked. No matter how far we may pursue the attractive though devious ways of nomenclature, of generic, specific and varietal distinctions, there will always be some bird that hovers in the background of memory,—some song, some nest, some flock of elusive migrants, each blending with some never-to-be-forgotten scene. Perchance an old garden, a windy autumn sky, a delectable woodland spot, a wide stretch of shore. In some such scene we come under the spell of bird-life, with an abounding zeal to know more and yet more of its fascinating problems.

How many birds are associated in our memory with a particular landscape, and how often a bird's voice embodies the spirit of a place. The cool twilights of the northland are blent with the mellow flute notes of Thrushes; the brooding spirit of summer woodlands finds voice in the untiring chant of the Red-eyed Vireo; the tide-rip is in the scream of the Tern, as it follows the shifting school. How much of shade and solitude there is in the Cuckoo's guttural—a note of mystery, like the "wandering voice" of its European congener.

And, again, in the names of birds, how much of the real life is embodied in these. The vernacular is often the expression of subconscious genius, a genius for naming things as old as the race itself. I have traced in old vocabularies, as far back as that of Ælfric (955-1020 A. D.), the vernacular of a number of familiar bird names. Thus 'gull,' as the word stands in our modern dictionaries, may have been derived from several sources; either from the voracious feeding of the bird, or from some notion of foolishness or stupidity connected with it, or even from the yellow color of its beak. Skeat would derive it from the second above noted, which is Celtic in origin—"so called," he says, "from an untrue notion that the *Gull* was a stupid bird." But the name of this bird in the Anglo-Saxon tongue is true to the life—*haefen blaete*—literally a "haven screamer." "Plover," again, is close to its old French and Low Latin origin—meaning of the rain, or belonging to rain—probably, as Skeat suggests, from being "most seen and caught in a rainy season." Its German name, *regenpfeifer*—the 'rain piper'—suggests a similar idea.

Among our own birds, this same genius for names has been at work. What more appropriate title than 'Bobolink' for the gay jingler of our meadows, or 'Flicker' or 'Phoebe,' 'Veery' or 'Hermit,' 'Chewink' or 'Chickadee,' or that array of Warbler names so rich in color suggestion? What other Sparrow could have been the *Song Sparrow*—or what other one the *Chipping Sparrow*? Names indicative of haunts call up a background picture of sea beaches in 'Sandpiper' and 'Sanderling'; of bosky glades in 'Woodcock' and 'Wood Thrush,' and of the homestead in 'Barn Swallow' and 'House Wren.' Even scientific nomenclature has been touched by this genius for names. What more appropriate for a group of Woodpeckers than *Dryobates*, a treader of oaks; or the name applied to one of its varietal forms—*hyloscopus*, watching over woodland; *Pooecetes*, a dweller in meadow grass, is a poem in itself, and *Hesperiphona*, the sunset voice—is the golden glow of the West.

That dual personality that haunts most of us is strangely alive in the ornithologist. Even in the most rigidly scientific devotee, in whom the pleasure seems altogether to be in the pursuit of the determining character or the qualifying title, there is still joy in the living bird and its background. And often this deeper scientific knowledge brings a deeper and more real appreciation of the esthetic quality of bird life. Bliss Perry has somewhere remarked on two contrasted points of view regarding the Skylark—two definitions that stand for the poetic and the scientific type of mind. "In the Century Dictionary," says Mr. Perry, "the Skylark is described as a small oscine, passerine bird of the family Alaudidæ . . . insectivorous and migratory; in your Shelley the same bird is pictured as an unbodied joy." Now these two definitions are both admirable and both may be entertained by the same mind, and I hold that to the catholic spirit the first—the scientific definition—is rich in poetic suggestion. What more delightful conception than that of *oscine*—the ancient name for a singing bird, one whose notes were augural, whose *syrix*—a reed pipe borrowed

from the great god Pan—charms us to this day. Curiously enough, too, the Lark is apparently connected in the old Celtic mythology with a notion that its song was of ill omen, and 'laverock' has the same significance. *Alaudidæ*, from *Alauda*, a supposedly Celtic word meaning the *high song*. "Insectivorous" calls up a picture of the bird foraging over arable land in quest of its choice food, and "migratory" has in it all of the mystery and fascination of that marvellous instinct of bird life. Scientific knowledge, aside from its recognized utility, is thus an added power for appreciation.

Ornithology has a literary background, as well as the larger background of nature. Who has not some richly stored memories of Wilson or of Audubon? To have come upon these books in the formative period of one's life was indeed a happy circumstance. I remember one spring, many years ago, poring over the second volume of *The Birds of America*. Each plate and its accompanying text became a part of my mental life. And that May I saw my first Warbler—a Chestnut-sided—an atom of the migratory wave, of which I then knew nothing, swept, as I thought, by some miracle, into a solitary tree in the back yard of a city residence. Audubon's account of this species was to the effect that he had shot five of these birds one cold May morning in the year 1808, at Pottsgrove, Pennsylvania. Whatever else he had written was for the moment forgotten. I had seen the sixth individual of its kind, and I went to school that day in a state of mind which only those who have had a like experience will understand. And Wilson was a delight. An early edition of the 'American Ornithology' was an heirloom in my family. It was deliciously musty, and the plates had made copper-colored impressions on the opposite pages of the text. In the distribution of things, these volumes drifted to me, and a turn of their old leaves still unlocks a gate that opens on 'The Road to Yesterday.'

Those of us who acquired a taste for ornithology in the seventies can never forget the 'Key to North American Birds,' 'Birds of the Northwest,' and Field Ornithology', nor Samuels' 'Birds of New England', nor Baird, Brewer and Ridgways' work, nor even the old Smithsonian 'Check-list.'

This reminiscence suggests another background—that of history—the change of habit and of habitat of many birds, as the forests were cleared and the land became domesticated. I have elsewhere dwelt on this aspect of our bird life in a paper published some years ago in the 'Popular Science Monthly.' In that paper, entitled 'Birds of the Grasslands', I thought to show that certain of our eastern field birds—those that are peculiar to the open tracts of country, like the Vesper, the Grasshopper and Savanna Sparrows, the Meadowlark and the Dickcissel—might be a surplus population from the prairie region. The history of the Dickcissel in the east gave a strong color to this view. It was either this or a radical change of habit in the several species concerned. Today I do not feel as sure of the solution as I did at the time of writing that paper. The problem to me, however, is one of very great interest—this effect of the settlement of a country on its bird life. If I may be allowed to quote a paragraph

from that article:—"We can picture to ourselves a few prairie stragglers finding their way into the newly cleared lands of the settlers and gradually establishing themselves in the eastern fields. By what route they came is a matter of conjecture—probably from the southwest in the northward-setting tide of the spring migration, or possibly by way of the Great Lakes and St. Lawrence Valley." Still, as I said before, I do not feel quite so sure of the actual facts as I did fifteen years ago. One acquires a habit of enjoying the idea—the broad sketch with its hazy outlines—without bothering about the finished picture. The settlement of the land has, as we know, greatly altered the status of bird life and has added a background of domesticity quite as charming in its way as the wilderness.

One other background which some of us—not all of us—love—the ornithologist's own collection. That collection made in the days of one's youth, each specimen, ill-shapen though it may be, forever potent to conjure the scene and the hour of its eventful capture. And the smell of those old boxes and chests of drawers—what fragrant memories are evoked!

These backgrounds seem to me to be the very soul of ornithology. What branch of science comes nearer to satisfying that primitive instinct in a man—that instinct that takes him into the woods to hunt and fish or for the mere sake of steeping the senses in the fresh, rank life of things, and at the same time abundantly satisfying the acquisitive and classifying habit of mind?

Each one of us holds some secret key—some open sesame—into the delightful background, and in the words of Keats in his "Ode to a Nightingale" so may we apostrophize the bird of our imagination—

"Thou wast not born for death, immortal Bird!
No hungry generations tread thee down;
The voice I hear this passing night was heard
In ancient days by emperor and clown;
Perhaps the self-same song that found a path
Through the sad heart of Ruth, when, sick for home,
She stood in tears amid the alien corn;
The same that oft-times hath
Charm'd magic casements, opening on the foam
Of perilous seas, in faery lands forlorn."



The Nest in the Gutter

By GILBERT H. TRAFTON, Passaic, N. J.

Photographs by the author

ON the morning of June 30, my little girl informed me that she had seen a bird's nest on the roof of the house. I went out to investigate, thinking that an English Sparrow had probably chosen the gutter for its nesting site; but I was much surprised to see the white-tipped tail and black bill of a Kingbird projecting from the sides of a nest which was closely fitted into one end of the gutter. This suggested one of the first steps in the process of evolution by which the Kingbird may change its nesting habits to adapt them to the advent of man, as its cousin the Phoebe, and other birds have already done. I had seen a Kingbird keeping watch in a neighboring orchard, but I had not supposed its nest was so near. As I was watching, one of the birds flew to the edge of the nest, and, after waiting till its mate had come and settled on the eggs, flew away.

Lest the birds might be frightened away, I decided to make no examination of the nest till the young had hatched. During the following week a bird was almost constantly on the nest. Several times I observed the bird on the nest being fed by its mate, and from my observations I judged this to be the way in which the bird usually obtained its food. On one occasion, the birds changed places on the nest.

On July 6, I first saw the yellow bills of the young appear over the edge of the nest, while the parent was standing by with outspread wings to shield the young from the intense rays of the midday sun. I then ventured for the first time to look into the nest, using a long ladder reaching to the eaves. As I ascended the ladder and came near the nest, both birds flew furiously around me, uttering loud cries and dashing at my head with a whirl of wings and snap of the bill, which suggested an unpleasant experience in case the birds came nearer. The nest contained four little ones, covered with a soft white coating of long fluffy down, looking like so many balls of freshly combed cotton.

During the first part of the day, my presence near the corner of the house, even while on the ground, was sufficient cause for the birds to fly around, uttering cries of alarm, but later in the day they became quiet, so that I was able to remain near without disturbing them. That the birds might become accustomed to the ladder, I left it near the nest for the first day; on the following forenoon a tripod was attached to the ladder, and in the afternoon the camera was set up and the first picture taken, using a long piece of linen thread to snap the shutter. Although the birds flew at me fiercely while working at the camera, yet no sooner had I reached the ground than one of them was at the nest.

The day was an exceedingly hot one, and the parents spent most of the time during the middle of the day standing over the nest with wings outspread, to shield the young from the hot sun, themselves panting, meanwhile, with wide-

opened bill. After I had taken the first picture, the bird remained standing quietly over the nest while I changed the plates, focused the camera and snapped the shutter for another exposure.

Pictures were taken every two or three days, but the longer I worked with the birds the more fierce became their attacks upon me, quite in contrast with a pair of Chickadees with which I had been working a few days before, which came and fed their young without paying any attention to me while I was standing near, arranging the camera. After the second day, whenever I approached near enough the nest to set up the camera, the Kingbirds flew at me furiously, poising themselves above me and then darting quickly at my head, now coming near enough to strike me with their bill. In no case was blood drawn, but, as they usually struck about the same spot each time, I was glad of an excuse to cover my head with a cloth while focusing the camera. Their rage seemed to grow from day to day, and on the morning of the fifth day my appearance outdoors was the signal for both birds to hover over my head and utter loud cries, while waiting for an opportunity to dart down at me. In the afternoon of the same day, while I was watching the birds from a distance of about fifty feet, one of them, which had been standing on the gutter near the nest, suddenly made a dash



KINGBIRD SHIELDING YOUNG FROM
THE RAYS OF THE SUN

straight for my head with such speed and quickness that I barely had time to throw up my arm to ward off the attack. They never attacked me unless both birds were present, and even then only one came near enough to strike me.

An occurrence on the fourth day, which might have resulted in a tragedy, doubtless tended to strengthen the feeling of antagonism which the birds displayed. It was an extremely hot day, and, as there were no trees near the house, I fastened a bough of a tree to the ladder in such a way as to shade the nest. Although the birds attacked me vigorously as usual, I thought that the shade might prove just as grateful even if furnished against their will. During the afternoon a terrific thunderstorm arose, in which the rain fell in torrents and was accompanied by a gale of wind which blew the bough and ladder past the nest, tearing off one of the shingles near. After the storm I looked at the nesting site, expecting to find that the torrents had washed the nest and young from the gutter, but fortunately everything was as usual, and apparently both nest and young were in as good condition as ever.

The food given the young seemed to consist chiefly of small insects, too

small to be identified, even with a powerful field glass. Occasionally a mulberry was brought from a neighboring tree. During the second day the parents spent most of their time standing over the nest with outstretched wings, to protect the young from the sun's rays. During the middle of the day the young were fed only occasionally, but later in the day they were fed oftener; but still they were shielded by the parents, who changed their position a little to one side, as the sun sank nearer the horizon. Likewise, on the forenoon of the fourth day, the morning being very hot, the attention of the parents was given to hovering the young rather than to feeding them. Later in the forenoon when the sky



KINGBIRD PREPARING TO
FEED YOUNG

became clouded, they stopped hovering and fed the young oftener. This was the last day that the birds were observed to shield the young from the heat of the sun.

The work of feeding the young was about equally shared by both birds, who showed themselves in this, as in other ways, a loyal and devoted couple. After feeding the young birds, the parents would frequently remain standing on the gutter shielding the nest, or at some point near, till its mate returned.

The frequency of feeding seemed to depend on the age of the young, the kind of day and the time of day. The older the young grew the oftener they were fed. During the first few days they were fed oftener on a cloudy day and less often during the middle of the hot days, the attention of the parents being en-

gaged in protecting the young from the sun's rays.

Observations were made every few days on the feeding habits for periods ranging from thirty minutes to two hours, with the following results.

DAY	Kind of day	Time of day	Times fed in an hour
Second	Very hot	Noon	10
Fourth	Very hot	Middle of forenoon	15
Sixth	Medium	Last of forenoon	16
Eighth	Medium	Middle of afternoon	20
Ninth	Medium	Middle of forenoon	25

Frequently food was brought so often by the parents that one was obliged to wait near the nest till its mate had finished disposing of the provisions which it was parceling out to four hungry mouths.

structure. One of the Doves was on the nest when discovered, but no eggs were present. This nest was afterward abandoned, for some unknown reason.

Another nest of this species was noted on May 28, in the same general locality, but was placed on the ground. The nest, a simple affair of dried grasses and a very few twigs, was situated at the foot of a tree about half-way up the side of the ravine, and contained two fresh eggs with the old bird sitting. Three days later the nest was revisited but the eggs were gone and the nest apparently abandoned.

A similar nest was located by another party earlier in the season. This one was placed at the base of an apple tree in rather an extensive orchard, and also contained eggs.—A. D. TINKER, *Ann Harbor, Mich.*

A Winter Robin

It has occurred to me that the readers of BIRD-LORE might be interested to know that, on January 10, the writer saw a Robin in the city of Chicago. The bird was very much alive, although apparently puzzled and disturbed. It was in a tree on the side of a bricked street, within two squares of Lake Michigan. The mean temperature for that day was 36°; the ground was bare, and the wind from the south. The first dates on which a Robin was seen by the writer for the past three years are February 24, 1905, February 22, 1906, February 16, 1907.—PERCIVAL B. COFFIN, *Chicago, Ill.*

Nature's Remedies

Nature does not run this world on humanitarian principles. If any forms of life become too numerous, she finds a plan to check them. And while it may be hard on the individual, and may cause unthinking people to call it cruel, yet it is the divine law of the universe and is for the good of the community. There have been several exemplifications of this law in Pennsylvania recently. For years the English Sparrows have been an ever-

increasing nuisance to both farmers and town-dwellers, but there is a measure of relief in sight. In West Chester, a town of 11,000 people, there are dozens of little red and gray Screech Owls hiding in the old dead trees in daytime, and at night sallying forth to make a meal on the English Sparrows. They are making their mark, too, for the Sparrows are becoming less abundant to a considerable extent, and the people have come to a realization of the good the Owls do, and are giving them protection. Along this same line might be noted the entire absence, during the past season, of the potato bugs. Some disease seems to have attacked them, and last summer they were absolutely wiped off the face of the earth so far as this part of the country is concerned.—ROBERT P. SHARPLES, *West Chester, Pa.*

Over-productive Robins

A friend of mine, a physician and a thoroughly reliable man, tells me of a pair of Robins which rather overdid the matter of brood-rearing last summer, in the town of Strasburg, this county. They built their nest on some vines trailing about a veranda, so that they could be easily watched. Instead of laying the usual Robin clutch of eggs, the female laid eight. My informant declares that they were all Robin's eggs, and none of them the eggs of the Cowbird. He says he has known the Robin's eggs since his boyhood days, and cannot be mistaken in this instance.

In due time all the eggs were hatched. As the bantlings grew, the nest began to overflow, and, one by one, at least three, perhaps four, of them were crowded over the edge, fell to the ground, and were found lying there dead, still too young to be taken care of outside the nest. Four of the birds remained in the nest till they were able to fly, when they were brought off safely. I do not believe such over-calculation is frequent in Robindom, or in any other part of the bird domain. Do other observers know of such instances?—LEANDER S. KEYSER, *Canal Dover, O.*

Book News and Reviews

GILBERT WHITE OF SELBORNE. A lecture by W. H. MULLENS. London. Witherby & Co., 326 High Holborn. 1907. 8vo. 32 pages, 7 plates. Price 2s. 6d., net.

Every American nature-lover who visits England without making a pilgrimage to Selborne fails in his duty to Gilbert White's memory and to himself. The reasons why one should gladly pay his tribute to White are obvious; but, if this father of local naturalists had not made his own little world famous, it would still be well worth seeing for its own sake, and particularly for the opportunities it offers to the stranger to become acquainted with the commoner English birds. But, whether or not one can enjoy the charm of Selborne's pastoral beauty and its vivifying influence on his impressions of White, Mr. Mullens' treatise is well worth having for the information it contains of White, of Selborne, and of the classic 'Natural History and Antiquities.'—F. M. C.

BIRDS OF CALIFORNIA IN RELATION TO THE FRUIT INDUSTRY. Part I. By F. E. L. BEAL. Bulletin No. 30, Biological Survey. 8vo. 100 pages, 5 plates.

Professor Beal has passed three fruit seasons in California, gathering the material on which this important paper is based. The comparative scarcity of wild fruits in the regions devoted to orchards, together with the fact that orchards developed by irrigation prove attractive oases for many species of frugivorous birds, has made the destruction of fruit by birds a more serious question in the West than it is in the East.

Professor Beal presents at length the evidence he has secured by observation in the field, and by analyses of stomach contents, and concludes that only the House Finch or Linnet is sufficiently destructive to fruit to warrant a reduction in its numbers. Other species may appear to be harmful, but a record of their food, at all seasons, shows a balance in their favor.

None of those, he says, most directly concerned "advocated measures for the extermination, or even the material decrease, of birds." "We can't get along without the birds" was a sentiment voiced by many and endorsed by all.

LIST OF BIRDS LIVING IN THE NEW YORK ZOOLOGICAL PARK, December 31, 1906. Reprinted from the Eleventh Annual Report of the New York Zoological Society. 20 pages.

In an editorial footnote to this publication, we are informed that "in the great majority of cases the Society holds that the publication of lengthy lists of names is uninteresting to the public and therefore undesirable." An exception, however, has been made in the present case, "partly on account of the universal interest in living birds, and also because of our need of a printed check-list of our bird collection."

Without pausing to inquire why lists of the mammals and reptiles living in the park would not also be both interesting and useful, we are sure that aviculturists, artists and bird students in general will welcome this statement of the splendid collection of birds which Mr. Beebe, the Society's Curator, has brought together.—F. M. C.

GEOGRAPHIC VARIATION IN BIRDS WITH ESPECIAL REFERENCE TO THE EFFECTS OF HUMIDITY. By C. WILLIAM BEEBE, Curator of Birds. *Zoologica*, Vol. 1, No. 1. 8vo., 41 pages, 5 half-tone plates. Published by the New York Zoological Society.

Zoological parks are so often considered mere menageries for the exhibition of living animals that we always think with satisfaction of Mr. Beebe's admirable work with the birds of the New York Zoological Society. As Mr. Beebe remarks, "It has long been known that many mammals, birds and reptiles, inhabiting a moist, humid region show a much darker or increased pigmentation of the hair, feathers or scales than individuals from drier localities." Mr. Beebe,

however, is, we believe, the first naturalist to demonstrate by actual experimentation the relation between humidity and intensity in birds' colors.

He presents a historical review of the subject, and discusses dichromatism and sporadic melanism, but the chief interest in this paper centers in the results of his subjection of a White-throated Sparrow, a Wood Thrush and Inca Doves to an atmosphere with a humidity of 84 per cent, this being .11 greater than the mean annual humidity of New York City. In each instance, after a period of between two and three years for the Thrush and Sparrow, and as many as six years for one of the Doves, the plumage showed a great increase in pigment, the Sparrow being nearly black, the Thrush and Dove with the black areas largely increased. In no case, it should be noted, was there a change without molt.

In discussing the philosophic aspects of the case, Mr. Beebe concludes that such ontogenic variations are somatic, and would not affect the offspring of the birds exhibiting them, and that we have as yet no means of telling when or how such modifications would become congenital.—F. M. C.

REPORT OF THE SECRETARY OF AGRICULTURE ON THE WORK OF THE BIOLOGICAL SURVEY. Senate Document No. 132. Dec. 1907. 8vo. 29 pages, 6 maps.

We imagine that even those who are most familiar with the admirable work of the Biological Survey will be surprised by this summary of what it has accomplished since its formation. The results of its investigations of the food habits of birds have formed the very backbone of bird protection throughout this country, and are cited as models wherever the subject of economic ornithology is considered. Its faunal and systematic work, aside from its importance in establishing Life Areas, is of the highest scientific value, while its activity in game protection under the provisions of the Lacey act, have strengthened the game laws of every State and territory by unifying the interests

involved, and arousing a spirit of coöperation among those whose duty it is to protect our wild life.

The Survey has published over 7,000 pages of printed matter. Most of this is unique in character, or, in other words, if it had not been prepared by the Survey it would not be in existence; which is only another way of saying that if it were not for the researches of the Survey we should not know much more about the general food habits and economic value of our birds and animals than we did twenty-five years ago.

On the merits of this summary, the Survey clearly deserves to be ranked among those branches of the government service which are making returns of the most practical value to the people.—F. M. C.

REPORT OF THE CHIEF OF THE BUREAU OF BIOLOGICAL SURVEY FOR 1907. By C. HART MERRIAM. From Annual Reports, Department of Agriculture, Washington, 1908. 8vo. 23 pages.

The wide and varied field covered by the Biological Survey is evidenced by this summary of its activities during 1907. In economic mammalogy, the Bureau has investigated the relations of coyotes, wolves, rabbits and other destructive native species, of house rats and bacterial diseases. In economic ornithology, work has been done on birds in relation to scale insects, to fruits and to the cotton-boll weevil. The food of wild Ducks is being investigated and a report on the food of Grosbeaks has been concluded. A report on means of attracting birds is promised, but, in the meantime, information in regard to this subject may be obtained on application to the Survey. A bulletin is also in preparation on the distribution and migration of shore birds.

Other phases of the Bureau's work, to which attention is here called, are the distribution of trees, the establishment of life and crop zones, the supervision of the importation of foreign birds and mammals and of bird reservations, the protection of game in Alaska, the publication of the game laws of the United States and

Canada, and other bulletins in connection with the enforcement of the law.

The publications of the Survey during the year include one 'North American Fauna,' two 'Bulletins,' four 'Grosbeak' articles, two 'Farmers' Bulletins,' eight circulars, the Report of the Acting Chief for 1906, and nine reprints of former publications. This is a record entitling the Survey to the thanks of every one interested theoretically or practically in the increasingly complicated economic relations of our birds and mammals.—F. M. C.

OUR BIRD COMRADES. By LEANDER S. KEYSER. Rand, McNally & Company. 12mo. 197 pages, 16 colored plates.

Mr. Keyser here brings together in a well-printed volume a number of the studies from nature for which he is so well known. The character of these essays is indicated by the following titles: 'Beginning the Study,' 'Making New Friends,' 'Wildwood Minstrels,' 'Chickadee Ways,' 'An Alpine Rosy Finch,' 'A Bird's Education,' 'Bird Flight,' 'A Bird's Foot.'

Mr. Keyser bases his writings on original observation, and they thus have an ornithological as well as a popular value.

The colored plates from mounted birds are far from satisfactory.—F. M. C.

The Ornithological Magazines

THE AUK.—The pages of the January number are monopolized by local lists and migration data of more or less general interest. Several contributors lay emphasis on the unusual coldness and backwardness of the spring migration season of 1907, together with the resultant destruction of bird life. The Rev. G. Eifrig furnishes observations made at Ottawa, Canada, Mr. N. A. Wood records the unseasonable conditions that prevailed, even in June, at Ann Arbor, Michigan, and Mr. L. H. Porter reports a number of species nesting about two weeks later than usual at Stanford, Conn. In contrast is the extremely early autumn nesting of

the Barn Owl, Mr. A. T. Wayne recording a nest found in South Carolina in September.

Mr. A. C. Bent's 'Summer Birds of southwestern Saskatchewan' and Mr. E. S. Cameron's 'Birds of Custer and Dawson Counties, Montana,' are concluded in the present issue. There is also a local list by F. H. Allen of 'Summer Birds of the Green Mountain Region of southern Vermont,' and an important contribution by Mr. E. T. Seton, entitled 'Bird Records from Great Slave Lake region.' Considering the interest that attaches to the latter little-known region, it is a matter of regret that we find neither an introduction nor even an itinerary of what was evidently a very interesting trip. Among other things, Mr. Seton found the first authentic nest of Harris's Sparrow (*Zonotrichia querula*) that has been secured. In passing, we would say that abbreviations such as we find in Mr. Allen's list should be avoided. It is bad enough to be obliged to interpret with a key asterisks and other marks that have a different meaning in every local list one refers to, but to read that a species is 'common at L.; less so at W. B.' makes one wonder if the price of ink has gone up.

Mr. S. Buturlin, writing of the 'Red-spotted Bluethroat of Alaska,' considers it identical with the Siberian form which bears the name *Cyanecula suecica robusta*, and Dr. J. A. Allen, in discussing 'The Generic names *Mycteria* and *Tantalus*, decides that our Wood Ibis should be known as *Mycteria americana*.

Dr. C. W. Townsend, in writing 'On the Status of Brewster's Warbler (*Helminthophila leucobronchialis*), and Mr. J. T. Nichols, in discussing 'Lawrence's and Brewster's Warblers and Mendelian Inheritance,' revive an old problem without adducing new facts, and leave it, except in theory, just where it was twenty years or more ago.

Mr. J. H. Sage's account of the twenty-fifth meeting of the American Ornithologists' Union is instructive, and the reviews and notes that close the magazine are numerous and varied.—J. D., Jr.

Bird-Lore

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OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

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Bird-Lore's Motto:

A Bird in the Bush is Worth Two in the Hand

APRIL 1 is the New Year of the Middle States bird students' calendar. March, it is true, has brought evidences of returning life, but it is not until the end of that month that we are thrilled by the spirit of spring. Where, before, we would hasten the wheels of time, now we would check them; stretching the succeeding two months into four.

With the year we renew our youth, living over again this exciting period of anticipation and realization. Greeting the far-travelled migrants with the joy of first meeting or with the deeper pleasures of association. Surely, in all nature there is nothing to compare with this return of the birds!

To the field-glass student the question of identification is now a living one in every sense of the world. But he may be assured that the best substitute for the bird is a detailed description of it, written while it is in sight. Put down everything you can see, and, if you cannot identify the stranger yourself, send the description to some number of BIRD-LORE'S Advisory Council. If the bird is very rare or accidental, write a detailed description whether you recognize it or not. The description will be far more convincing than your bare statement that you saw this rare bird on that.

Even better than a description, but usually impossible to get, is an identi-

fiable photograph of the bird. Few observers are as fortunate in this respect as our correspondent Mr. Brown, who reported the presence of a Rose-breasted Grosbeak in northern New Jersey in January and February. No bird of this species should have been in the United States at this season, and our request for a photograph on which to base the record was replied to, as will be seen, in the most satisfactory manner.

AN Index is not generally considered interesting reading, nor is it customary to buy an Index without the matter to which it refers, but the Index to the eight volumes of the 'Bulletin of the Nuttall Ornithological Club' and seventeen volumes of 'The Auk' is an exception to the first rule, and warrants a violation of the second. It is virtually a summary of what has been done in ornithology during the most important twenty-five years in the history of that science, the 150,000 entries being arranged by authors, subjects, common and scientific bird's names and localities.

The Index might be supposed to relate only to the papers contained in the publications mentioned, but as a matter of fact it has a much wider scope. Under the editorship of Dr. J. A. Allen, the 'Bulletin' and 'Auk' have acquired the well-deserved reputation of publishing the most extended, satisfactory and authoritative reviews of ornithological literature which appear in any journal. These reviews being as carefully treated as the original contributions to the 'Bulletin' and 'The Auk,' their subject matter also becomes a part of the Index, adding greatly to its value.

The Index was prepared under the editorship of Dr. Jonathan Dwight, Jr., who is to be unreservedly congratulated on the completion of his labors and on the admirable manner in which they have been performed.

DURING March and April the Editor who will be in the field, asks the indulgence of correspondents.

The Audubon Societies

SCHOOL DEPARTMENT

Edited by MABEL OSGOOD WRIGHT

Address all communications to the Editor of the School Department, National Association of Audubon Societies, 141 Broadway, New York City

A GOOD EXAMPLE

THE honorable President of the National Association of Audubon Societies had a birthday in January—his sixty-second—more power to him! In some way the fact leaked out in spite of the very quiet celebration of the event, and some of the members of the *La Rue Holmes Nature League* who are pupils of the public schools of Chatham, Orange, and Summit, New Jersey, were moved to write their congratulations to Mr. Dutcher.

As it is impossible to print all of the letters, the two below printed are given as showing two opposite styles—the imaginative and the directly practical. As for congratulations and the best wishes for many years ahead, for our President, all filled with the work that is his greatest joy, all those who have worked with him, and know his singleness of purpose, will heartily join with the children.—M. O. W.

SUMMIT PUBLIC SCHOOL, NO. 1, SUMMIT, N. J., January 17, 1907.

Dear Mr. Dutcher:—I am a boy in the Summit Public School. I know that you cannot be thanked by the birds you have saved. I do not think I can thank you very much, but as I grow up I am going to save all the wild birds and flowers that I can. This will be the way I can thank you.

I also wish you a Happy Birthday and many of them.

Your unknown friend, OSCAR HELLQUIST.

SUMMIT, N. J., January 17, 1908.

My dear Mr. Dutcher:—You probably do not know me, but I do know you. I am a Partridge. I live in the woods in New Jersey. One of my children said this morning, "Oh, mother! What a beautiful day it is."

I said to him, "Well, I think you had better thank Mr. Dutcher for it, for if it were not for Mr. Dutcher you would probably be dead by now, killed by a naughty hunter."

He then said, "Mother, I want you to write Mr. Dutcher and thank him for telling those naughty hunters not to kill us."

So I am writing to thank you for passing laws so that "those naughty hunters" cannot kill us.

Your bird friend, E. N. PARTRIDGE.

This is the letter Mrs. Partridge gave me this morning. I feel the same way toward you, myself, for protecting our pretty birds, and wish you a Happy Birthday and many of them.

Yours truly, SADIE CADOO.

The Audubon Society of Connecticut is about to try a new plan for stimulating the work in schools and keeping the local secretaries in touch also.

As all the work in this state, as in many others, is done by those who work for the love of it, and who are not able to devote more than a small portion of their time to it, a new office has been created, that of School Secretary.

This position will be filled by a young lady who has not only been a teacher of teachers, and therefore knows the limitations as well as the requirements for bird work in the public schools, but has had success in speaking to children and teachers as well in the interest of the Audubon work.

There are often people who would be willing to become local secretaries and organize branch work if they knew exactly how to proceed, but it is not always easy to impart this information by either printed directions or letter. To meet these prospective workers half way, the School Secretary is prepared during the spring to visit central places in each county of the state, where a sufficient group of those interested desire to talk over the various branches of the work, and receive directions by word of mouth, with the added inspiration that comes from personal contact with one fitted to explain, as well as fired by enthusiasm.

Any one living in the state, interested either in introducing protective bird study into a school, or of forming a local circle of the Audubon Society, may address Miss Hurd, 43 West avenue, South Norwalk, Connecticut.



FLORIDA SCREECH OWL

Photographed by George Shiras, 3d

THE SONG SPARROWS

The Sweet Singers

By MABEL OSGOOD WRIGHT

The National Association of Audubon Societies

EDUCATIONAL LEAFLET NO. 31

All birds have some sort of claim upon the attention, through knowledge of individual habits or economic worth, even when beauty of plumage or song does not hold our attention. There are birds that we should miss if they disappeared from the places where we have been accustomed to find them, but there are others that we simply could not get on without, and the Song Sparrow is one of them. Song Sparrow? It would be better to say Song Sparrows, as this shy, yet friendly, bird in its adaptation to the various conditions that enables it to live in so many parts of North America, has developed a score of species that vary more or less in size, color and markings, yet every one of these has the attributes for which we love our own little Eastern Song Sparrow (*Melospiza cinerea melodia*) so well that we forget that he is not the only one.

In a large family like that of the Sparrows and Finches, to which our Sweet Singer belongs, one would expect to lose sight of the streaked brownish bird with the large spot in the center of his breast, as if Nature had blended two or three of the smaller specks, in order to aid its identity and help us out. But no, the Grosbeaks and Crossbills may compel the eye as they flash in and out of the trees; the Juncos, Snowflakes and Red-polls cheer us in winter; but, when the March sun releases the frozen brooks, what voice is it that first rejoices at the sound and tells us of it?—the Song Sparrow! Up floats his cheerful ditty from the alders—"With sweet, sweet, sweet and very merry cheer!" before his cousin the Goldfinch has donned his yellow spring jacket with black sleeves and cap, or the tremolo of the gentle soft-eyed Chipping Sparrow is heard from the grass before dawn.

Our Song Sparrow is one of the little group of birds that may be called winter residents in the middle New England states. This does not mean that all of these Sparrows remain the entire season in their summer nesting haunts, for even the hardiest birds shift about in the winter season. The Song Sparrows we see from November to March are apt to be those that have summered considerably farther northward; thus, some of the birds that bred in the region of Quebec would be likely to winter in Massachusetts, while the Massachusetts birds would come on to Connecticut, New York, Pennsylvania, and so on. Neither will the Sparrows be found so plentiful even in the middle parts of their range as in summer, as by far the

**Season and
Range**



SONG SPARROW

Order—PASSERES
Genus—MELOSPIZA

Family—FRINGILLIDÆ
Subspecies—CINEXEA MELODIA

greater number will go to the southerly limit, lured by mild weather and the more generous food supply.

The range of our Eastern Song Sparrow is through the whole of eastern North America westward to the plains. It nests from Virginia and northern Illinois up to Manitoba and Quebec, and winters from Massachusetts and southern Illinois down to the Gulf of Mexico. When you realize what different conditions obtain in the various parts of this great range, you will at once see how very adaptable this Sweet Singer is to all sorts of climate and food conditions. For though we may not think them plentiful birds, from their rather elusive ways, habit of spending much time in river brush, and never gathering in great autumnal flocks, like some of their kin, yet they are one of the few species that have everywhere increased rather than diminished.

The difference in the time when nesting is begun by different species of birds is a most fascinating study. By the middle of March the winter Song Sparrows

will have taken wing, and from that time until well into April the summer residents will come along, not in flocks, but one or two at a time, appearing near the old nesting places. April is probably the best time to hear the most voluble and unguarded song of the Sweet Singers, for, as they do not begin to nest until early May, there is no necessity of secrecy of movement or choice of singing perch.

It is a fact to be noted, that the hardiest birds, or those first to arrive, are by no means those that nest first. The large birds, Owls, Hawks, etc., take the lead of the smaller birds; the Bluebird, White-breasted Nuthatch and Robin only nest in April. The Song Sparrow and Phoebe (who returns in March) wait until May; and the Goldfinch and Cedar Birds, both sturdy winter residents, wait until almost the end of June.

The Song Sparrow conceals its nest with the greatest care, either in the mazes of a low bush, in the division of the branches of a shrub just above ground, where bits of bark and dry leaves have collected, or on the ground itself between grass tussocks that not only conceal the nest, but are sometimes woven in with the rootlets, plant fibers and shredded bark of which the nest is formed. Like the Chipping Sparrow or Hair Bird, it sometimes uses horsehair for an inner lining, and the four or five bluish white eggs, profusely marked with reddish brown, are always softly bedded by fine grasses.

The Sweet Singer does not always use the best of judgment in choosing the structure that is to hold its nest, though this I have found applies strictly to the second nest built in middle or late June, when, being attracted to the flower garden by the bird-bath in the corner, a pair of Sparrows built a nest among the flower-heads of a bunch of feverfews, that faded and left the nest exposed at the very time that the youngsters needed the most protection.

Much as they resent the company of humans near their homes, they made no objection to the strawberry basket that was secured under their nest, to keep it from tipping sidewise and dumping its load on the bare earth; neither did they

take fright at an old palm-leaf fan that was turned into an umbrella to supply the shelter that the fading flowers had promised.

If you wish to have Song Sparrows about the house, remember that there is no greater lure for them than water. It may be that constant bathing is one of the secrets of their good health, for certain it is that they are free from many of the epidemics that destroy so many birds. I have seen the pair of bird belonging to the fan-covered nest bathing when the June twilight was so deep that I could not distinguish their markings, and identified them by the sharp alarm note of "dick, dick!" and the fact that while they were splashing in the bath the nest, in which the young were then well-feathered, was left unguarded for the moment; but as soon as my motions attracted their suspicions they appeared close by and tried to scold me away and preen their soaking feathers at the same time.

 All through the long nesting season the Sweet Singer is an
Its Food an insect eater, both in the feeding of its young and largely in
 its own diet, while for the rest of the year it may be counted in
 the front ranks of the Weed Warriors, and at all times it may be included among
 the birds who do no harm to the fruits of farm and garden,—such berries as
 it takes usually being of small wild varieties.

The chief dangers that threaten this wholly lovable bird are from egg-hunting boys, the domestic "relapsed" cats, and the sort of civilization that not only cuts down woodlands for the evolution of the land to building lots, but fairly scarifies the field edges and roadsides, in a foolish craze for cleaning up, removing the wild hedges that mean so much to one's inner sense of beauty and the pleasure of the eye.

I have spoken of the adaptability to the many climates of its range of one species, the Eastern Song Sparrow. The changes wrought by the necessities that have developed many species in more widely separated parts of our country are very interesting and worthy to be remembered. Our Eastern bird is cloaked in reddish brown and with black streaks; tail with a decided reddish tinge, under parts streaked with black, edged with rusty brown, these streaks being so close in the middle of the breast as to form a large spot. Our bird is less than 6½ inches long and has a good-sized bill. It has an unmistakable song, and yet, though its notes vary indefinitely even in a single bird, its quality is typical of the whole tribe.

The size and plumage of the other Song Sparrows nearly a score in number, vary with the climate and rainfall of the locality in which they are found,* and it is interesting to follow these variations on the map.

Our Sweet Singer lives altogether east of the Rockies. At the extreme northerly portion of Alaska is found the largest bird of the tribe, the Aleutian Song Sparrow.

*See Climatic Variation in Color and Size of Song Sparrows, F. M. Chapman, in *BIRD-LORE*, Vol. VI, p. 164.

Coming down to the coast of British Columbia and southern Alaska, where the rainfall is 125 inches a year, we find the Sooty Song Sparrow, the darkest of all in color.

When we reach the arid regions of Nevada and Arizona, with a rainfall of only six inches, we find the palest of all, the Desert Song Sparrow; and, finally, on the Mexican-Central America border lives the Mexican Song Sparrow, the least of all. So, whether we live north, south, east or west, we shall have this sweet singer with us, who will surely reveal himself; and if we do not, at first, recognize his plumage, will sing his way straight into our hearts.



DISTRIBUTION OF SONG SPARROWS

Photographed from an exhibit in the American Museum of Natural History.
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The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by WILLIAM DUTCHER

Address all correspondence, and send all remittances for dues and contributions, to the National Association of Audubon Societies, 141 Broadway, New York City

WE NEED

More members in the Association, in order to increase our influence and our working fund. The question has often been asked by members, "What can I do to help?" The reply is always, "Get some friend to join the Association." If every one of our thousand members will do this, it will so enlarge and strengthen the Society that it will not be necessary in the future to reluctantly refuse to consider propositions for additional lines of bird-protection work. With the financial support of two or three thousand additional members, the Association will be in such a position that it can commence at once to carry out several important plans that we are now compelled to ignore.

We wish to stop Robin-shooting in the South during the winter and spring.

We wish to stop Dove-shooting in all of the states where it is now legal to kill these valuable birds.

We wish to remove the small shore birds from the list of game birds.

We wish to agitate for a close season of five or ten years on the Wood Duck and Bartramian Sandpiper.

We wish to prepare the way in all parts of the country for a uniform law, stopping shooting of every kind of game birds from January first to a reasonable open season in the fall of the year.

We wish to increase the educational work through the public press.

Above all, we wish to increase our output of educational literature to the school children of the continent.

The importance of all of the above suggestions must be manifest to every

thinking mind, and we commend them to the thoughtful consideration of the members of this Association especially and to the public generally.—W. D.

A New Bird Reservation

There should be no limitation to the activities of the members of this Association in seeking new tracts that can be set aside as bird refuges. All islands on the coast or in any of the interior lakes, especially in the great West, should be investigated, to ascertain whether water fowl or other birds nest there in any numbers. If such is the case, a report should be sent at once to the headquarters of the Association in New York City. This is an important work that can be carried on by any member, and, in view of the fact that the nesting localities of ducks and shore birds in all parts of the country are being rapidly restricted, it is important that refuges should be made where they can still breed, in order to prevent extermination. Islands or marshes that cannot be used for agriculture or home-steading will make admirable bird-breeding reserves. A report of the character of the place, and the approximate number and kinds of birds breeding there, is all that is necessary in the first report. On its receipt, inquiry will at once be made in Washington as to whether the property still belongs to the Federal Government, and, if such proves to be the case, an application will be made to have it set aside as a reservation.

One of our interested members, residing in Illinois, but who spends his winters south, discovered just such a tract

MOSQUITO INLET RESERVATION

For Protection of Native Birds

FLORIDA

Embracing all mangrove and salt grass islets, shoals, sand bars and sand spits in Townships 16 and 17 South, Range 34 East, Florida. segregated by broken lines and designated "Mosquito Inlet Reservation."



DEPARTMENT OF THE INTERIOR
GENERAL LAND OFFICE

Richard A. Ballinger, Commissioner.

[DIAGRAM ATTACHED TO AND MADE A PART OF THE EXECUTIVE
ORDER DATED FEBRUARY 24, 1908.]

last fall in Florida, which he reported, and we now have the pleasure of announcing that by Executive order the tract was set aside, and is now known as "Mosquito Inlet Reservation."—W. D.

Executive Order

It is hereby ordered that all small mangrove and salt grass islets, shoals, sand bars and sand spits, situated in Mosquito Inlet, and in and near the mouths of the Halifax and Hillsboro rivers, in townships sixteen and seventeen south, range thirty-four east of the Tallahassee meridian, Florida, and located within the area segregated by a broken line, and shown upon the diagram hereto attached and made a part of this order, are hereby reserved and set aside for the use of the Department of Agriculture as a preserve and breeding ground for native birds. This reservation to be known as the Mosquito Inlet Reservation.

THEODORE ROOSEVELT.

The White House,

February 24, 1908.

An Ideal Game Commission

A state may have excellent game laws, but they are never self-enforcing. Alabama, however, is fortunate in having a commissioner who is especially active, and the result is that the deputy wardens have a like activity. It could not be otherwise when they periodically receive letters like the following:

"Your attention is directed to the fact that many will attempt to hunt this month who have not secured a license for the year 1908. This violation of the license law, or any other, will not be tolerated by this department. The true sportsmen of the state have gladly bought hunter's licenses, and all others who hunt must do likewise.

"It will be well to inform the people of your county that this requirement will be rigidly enforced. You can best give publicity to this fact through the medium of the press, and it will be largely in the

interest of game preservation for you to converse freely with the editors of the papers in your county, that they may publish all the news relating to convictions and the enforcement of the law. Examine, and have your deputy ask to see the license of every one going hunting, found hunting or coming from hunting. If a hunter is required by law to have a license and has not procured the same, arrest should be made on the spot and prosecution instituted. It is unlawful for any person to carry game on a train without a hunter's license (see Section 42). Remember that all non-game birds are protected except those especially exempted in Section 5 of the game law. The time is at hand when Robins will be passing through Alabama, and those who kill these harmless songsters should be prosecuted. Enforce the law to the very letter, for only by this course can the conduct of a public officer be endorsed and upheld by the people he serves. Have your next grand jury investigate fully all infractions of the game and fish laws."

The instructions to the wardens to give particular attention to the protection of the Robin is especially pleasing to this Association, in view of the fact that in many other parts of the South it is reported that Robins are being killed by the thousands.

Stories of this character are not always absolutely reliable, but so much information has lately been received on this subject that it is undoubtedly true that Robins are being slaughtered in large numbers. A valued correspondent in Florida writes: Robin-shooting is mostly done by negroes, boys and uneducated persons, but also by those who should be on a higher plane. One woman saved a barrel of Robins' feathers last winter." Education is needed in that section, but the finances of this Association will not at the present time permit of any special work along this line. Is there not some person in the North, where the Robin is one of the most cherished of the familiar birds, who will establish a special fund to be used in a campaign of education in

the winter home of Robins, that they may receive there the same care that is given them in other parts of the country?—W.D.

Alien License Law

Apropos of the discussion now going on in several states in regard to license laws, it may be noted that, as might be expected, the strongest reason for a high alien license is furnished by the actions of aliens themselves. The most important feature of the license is not revenue (though that has its importance and is equitable), but the fact that it restricts many aliens (largely Italians) from hunting at all, and enables wardens to more easily investigate the hunting done by those who continue to go gunning.

Coming from a country devoid of appreciation of the economic value of birds, and where the smallest of feathered creatures are considered legitimate prey and food for man, Italians are strongly inclined to shoot the song birds of this country, as the most easily secured dainty to add to a none too varied larder. Despite the plea that has been made for them by some of the newspapers, viciousness, quite as much as ignorance of the law, is shown by these aliens, as evinced by frequent assaults on wardens who are enforcing the laws. The case of game warden, Daniel Edwards, of Beacon Falls, Conn., whose face was filled with shot by an Italian violator of the game law, is still fresh in mind. This is, perhaps, the most atrocious case, but the news items coming into the National Association office contain very many accounts of lesser assaults and threatened assaults on wardens.

Some months since, one of our special wardens, an enthusiastic bird student and earnest protectionist, was trying to check some of the violations he had frequently witnessed on his outing trips near New York. On September 14, last, he "found an Italian, at Rockaway Beach, about one and one-half miles from the railroad station, using two wounded Semipalmated Sandpipers as decoys. I told

him that he was violating the law, but he pretended not to understand me. I picked up one of the struggling birds, when he said, in fairly good English, 'let go, or I shoot!' I walked toward him holding the bird behind me, intending to explain the case to him. We were then about ten or fifteen yards apart. He discharged one barrel of his gun, intending, I believe, to scare me. Although most of the shot went wild, four pellets lodged in my right leg, below the knee. Seeing that he had hit me, he turned and ran, with his bag, in the direction of Jamaica Bay, where there are numerous small houses. I tried to follow him, but my leg inconvenienced me and I was soon out-distanced. Returning to the beach, I killed the remaining bird, having killed the other while talking to the Italian. I then removed two of the pellets, being unable to dislodge the other two, as the calf of my leg was already inflamed. I hurried home and dressed my leg, removing the other two shot next morning. . . . I have been to Rockaway twice since then but I have not encountered my assailant again."

An alien license, high enough to be almost prohibitive, in all states where aliens are found in numbers (which means almost every state in the Union), is one of the most important measures of game legislation, not only in the interests of the preservation of game, but also for the better safe-guarding of life and limb of the wardens.—B. S. BOWDISH.

The Plume Trade*

The official report of the feather sale of August 2d states that there was a small quantity of "Osprey" feathers offered, and only a small attendance of buyers. The quantity catalogued was 315 packages. The Birds-of-Paradise offered numbered 3,831, besides seven packages; all sold at a decline in prices. Albatross wing quills fetched $\frac{1}{2}$ d. to $\frac{3}{4}$ d. each. Bustard wing quills 4 d. to $4\frac{1}{2}$ d. a bundle, the provision of quills being very large. Emu skins were 10 s. each, and Crested Pi-

geons 6 s. each. A peculiarly deplorable feature of the sale was the offer of four packages of Lyre-bird tails; this beautiful bird is found only in Australia, and is being driven deeper and deeper into the bush in ever-decreasing numbers, on account of the persecution it meets with in the interests of the plume-trade.

Birds-of-Paradise continues to be a leading feature of the plume sales in London, and will apparently continue to be so until the last of these exquisite birds has found its sepulchre in a Houndsditch warehouse, unless measures are taken for its absolute protection throughout New Guinea. At the sale on October 15th, over 7,000 were offered, and nearly all "sold with good competition;" for that of December 17th, 4,667 were catalogued. The packages of "Osprey" feathers numbered 548 and 200 respectively, a large proportion being advertised as "East Indian." Other features of the two sales were 100 Lyre-bird tails from Australia, 96 Impeyan Pheasants (presumably from India, whence their exportation is illegal), and a large number of Coronata Pigeons and of Albatross quill feathers.

Plume-Hunters in the Soudan*

The French government has, it is announced, decided to supply funds for a thorough test of the question whether the Ostrich can be successfully domesticated in the French Soudan. Anxiety on the subject has arisen from the fact that the natives of Upper Senegal and Niger are, at the instigation of the plume-hunters, rapidly exterminating both Ostrich and Heron. Dr. Decorse, who has been investigating the matter for the Government, accordingly recommends an effort to farm the former bird, as is done so commonly in South Africa, by the establishment of large ranches where the birds may be kept as much as possible in the natural state. With regard to the Herons, only one course is possible if the birds are

to be preserved. The hunting of them is to be entirely prohibited for two years, and reservations are to be set apart in which the natives are never to be permitted to hunt the species.

Attracting Birds

The writer is preparing for the National Association of Audubon Societies a monograph on "Methods of Attracting Birds Around Our Homes." The purpose is to make this a comprehensive summary of what has been done by bird students along this line, and to collect in one pamphlet the results of these experiences. This is intended especially to be helpful to teachers and children. To accomplish the desired end, the writer will need the coöperation of the readers of BIRD-LORE, and, accordingly, he would make the request that those who have taken means to attract birds around their homes would kindly send him a brief summary of their experiences. Due credit will be given for all contributions. The following outline suggests some of the topics on which information is desired:

1. Feeding Winter Birds.*—Kinds of feed tried; kinds preferred by birds. Description of feeding trough; its location. List of birds that feed; birds tamed to feed from hand. Experiences with English Sparrows; devices tried to prevent them from feeding.

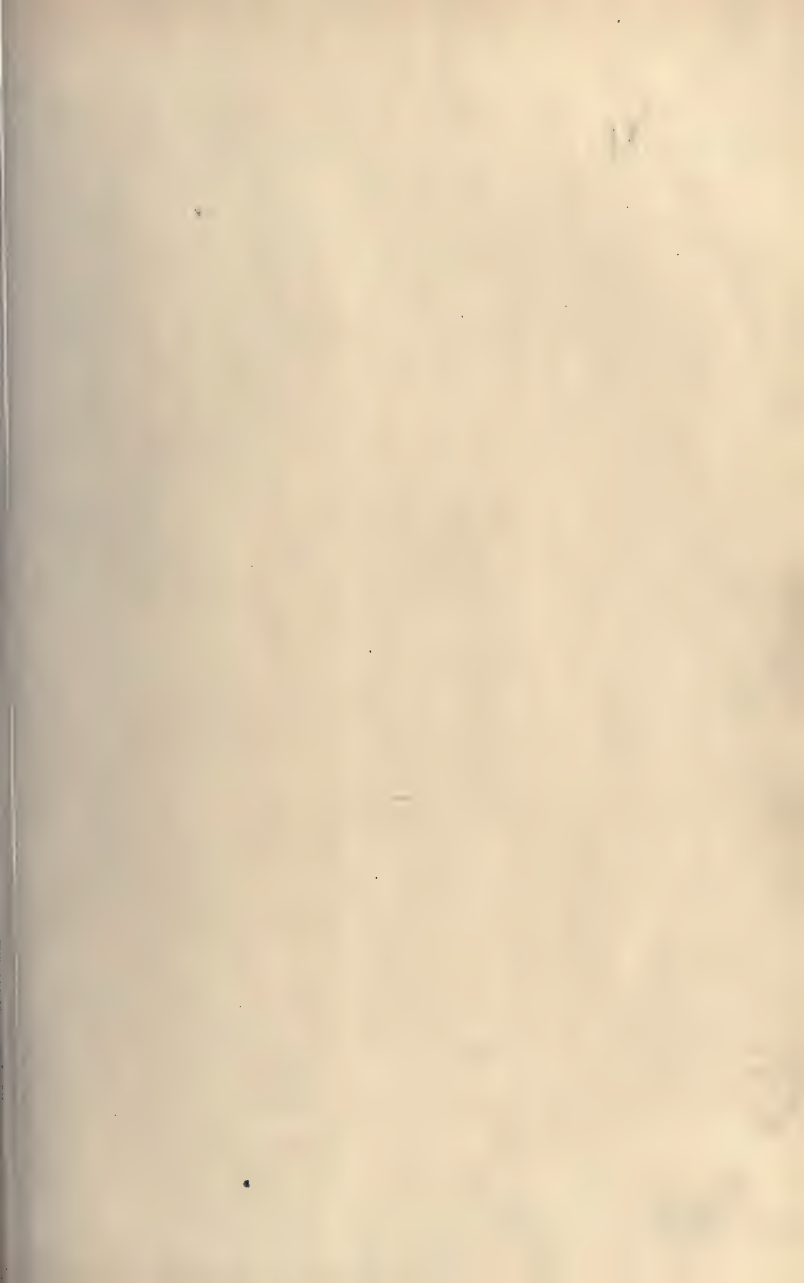
2. Providing Nesting Houses.*—Most successful kinds of houses; best location, and height from ground. Kind of birds using houses. Special adaptations to particular kinds of birds. Open boxes and shelves for Robin, Phoebe, Swallow, etc. Experiences with English Sparrows; devices to keep them from using houses.

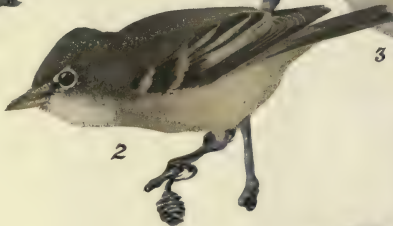
3. Drinking and Bathing Fountains.*—Method of construction; size; location. List of birds using it. How protected from cats.

—GILBERT H. TRAFTON, *Passaic, N. J.*

* From "Bird Notes and News," organ of the Royal Society for the Protection of Birds, London, England. Autumn and winter numbers, 1907.

* Photographs desired in addition to those which have already appeared in BIRD-LORE.





1. LEAST FLYCATCHER.

2. ALDER FLYCATCHER, FALL.

3. ALDER FLYCATCHER, SPRING.

4. YELLOW-BELLIED FLYCATCHER.

5. GREEN-CRESTED FLYCATCHER.

Bird = Lore

A BI-MONTHLY MAGAZINE

DEVOTED TO THE STUDY AND PROTECTION OF BIRDS

OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Vol. X

MAY—JUNE, 1908

No. 3

A Family of Great Owls

By WILLIAM COGSWELL CLARKE



THE *Hoo! hoo! hoo!* of the Barred Owl, issuing from the depths of the wood on a cloudy summer's day, or at eventime, usually attracts attention and passing comment. To some it is a mournful sound, while to those who have a taste for the fields, it is most pleasing and effective in giving a touch of the wild woods to the surroundings. For the sake of those who have regard for the big bird, I venture to publish the following short sketch.

One Sunday, late in April, 1902, we were driving through a well-grown patch of hard wood in Schraalenburgh, New Jersey, and, as we passed along, a companion had the good luck to spy a fluffy, grayish white object at the foot of a large white oak. This tree stood among others only twenty feet back from the roadside. Hastening to the spot, we found a partially grown Barred Owl, which had fallen out of its nest, either through some accident or because the nest was naturally insecure. Judging from the mentality later displayed by this baby owl, I rather hesitate to criticize the wisdom of its parents in selecting such a location, and in building only a mere suggestion of a nest in an open fork made by three limbs projecting from the main trunk of the tree. The little one, not at all hurt by the fall, was at once adopted and taken home.

Because of many past experiences with several varieties of young Hawks, I was most agreeably surprised at the extreme gentleness and friendliness displayed from the first by this little Owl. He was still in his downy coat, and, as yet, too young to stand on his legs. We fed him on fresh meat, supplemented, when possible, by mice and deceased young chickens and ducks. The importance of feeding growing Hawks, Crows, and Owls on these little animals is well known. If these carnivorous birds do not receive small, readily digested bones, their supply of lime salts will be so meager that rickets will result; that is, the developing bones in the young bird will be structurally so weak that they will either break or bend and become deformed, as the increasing weight of the growing bird is thrown upon them. I remember well a young Red-shouldered Hawk

that came to grief from a too liberal supply of butcher's meat without sufficient bone to provide lime.

Our Owl thrived from the first, and, until he was old enough to go about out-of-doors, he slept at night in a large basket in the house. Since he insisted on being fed at daybreak, I kept him near my bed, and, when he woke me calling, I would satisfy him. After that he would promptly go to sleep again. Most of his days were spent taking short naps, fixing his feathers, stretching his wings, and trying to fly.

As he grew, we all obtained considerable amusement from watching his various antics. One interesting performance was to place him on the back of a gentle horse quietly eating grass on the lawn. The Owl would look about and feel very much at home, except that every time "Winnie" turned to drive the flies away, he would scold her head with great energy, as if it were a strange animal attacking the one on which he was perched.

He also furnished no end of entertainment for the hens, who used to form an admiring circle and stare at him. I am sure that what the hens said would have been interesting if we could have known it. Judging from his actions, the amusement obtained on the part of the hens was reciprocated. He would look from hen to hen, continually bobbing his head up and down, always moving his neck from side to side. His head thus moved in a perpendicular line each time, parallel to the line just described. This motion was employed whenever he wished to inspect critically any object at a distance.

Our Owl, apparently, could see quite well even in bright sunshine; and, when sitting quietly on the piazza, he would follow, with the motion of his head, some one who might be passing along the road, which was about one hundred yards distant.

As he grew and learned to fly, he went at large while people were about. At other times we shut him up, because we feared that a stranger might shoot him. He certainly surprised me by his friendliness, gentleness and intelligence, although, it must be confessed, that as regards the latter quality, he never equaled any of my Crows, Bluejays, or Purple Grackles.

Our Owl, to my knowledge, never caught any birds, or obtained food for himself in any way, but depended exclusively for his living upon us.

He reached his full growth in about three months, and, from that time on, simply perfected himself in the art of flying. While he lived with us, he made use of only two sounds: one, resembling a hissing noise, he employed when frightened or when he wished to protest; the other, a high-pitched, short whistle, rapidly repeated, he used when he was pleased or hungry, or when he wished to attract attention.

In the fall, realizing that he might be shot if he were free about the grounds, and yet hating to shut him up, we decided to put him back in the woods where his family had lived. So, early in September, after giving him a square meal, we released him near the place where he was hatched. He flew to a tree and

began to bob his head up and down, becoming at once interested in his new surroundings, while we drove rapidly away. We have always hoped that he met with a friendly Owl who gave him all the necessary lessons in woodcraft.

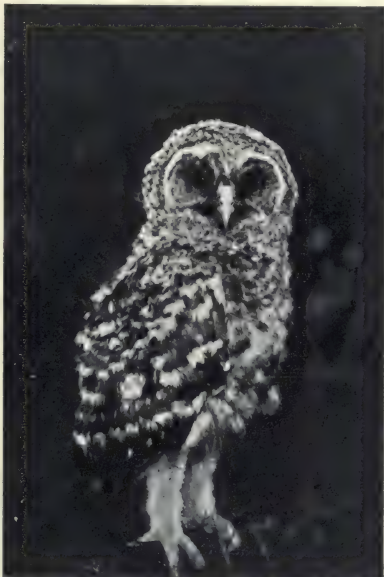
The following spring, early in April, I went to the same spot. Knocking, from custom, on the trunk of a large, partially dead maple nearby, to see who might be at home, at once a Barred Owl flew out from the top.

This tree was situated ideally for its purpose, on the edge of a dense swamp, surrounded by a growth of small maples and other hard wood. Climbing to the top, I found an extensive hollow, at the bottom of which were two newly hatched Owls and one egg. The old Owl returned during my investigation and watched me with considerable interest. I went back the following week and removed the unhatched egg, which promptly exploded in my pocket, proving to my satisfaction that it would not have hatched. After that we visited the nest each week until the young birds flew away.

The remnants of food found in the nest consisted of many feathers and one large sucker. Among the feathers which could be identified with certainty, there were, I am sorry to say, those of Robins and Flickers. We could not find the remains of any quadruped in the nest, and, because of the water which partly surrounded the foot of the tree, there was no other evidence preserved as to the nature of the Owls' food.

On our visits to the nest, we always saw one old bird, and, occasionally, both. They each kept a respectful distance from us and never made any effort to defend their home. Because of a gang of Crows, who had one or two nests nearby, the Owls were very chary of showing themselves. On two or three of our visits, they were seen, and what a hazing they received from their black neighbors! This certainly is one good reason that Owls have for keeping so shady in the daytime.

The third spring following our introduction, the Owls were back at the



YOUNG BARRED OWL

Photographed by William Cogswell Clarke

same stand in the broken maple. I well remember with what acute interest we ranged ourselves about the tree for a good view of our friends, if by chance they might be at home. True enough, at the first knock, out the old lady came, with little, if any, hurry, just as if only a week had passed since we last saw her, while really a year had gone by since we had shooed her away from her crop of owlets. This year, the third since we had found the Owl family, two eggs were laid and two Owls were successfully raised.

The fourth year, back we went to the same spot, but the Owls had not returned; nor, much to my regret, have they done so since that time.

The question might be asked, why do we speak of these Owls as if they were one family, returning year after year? In reply, it must be admitted that this fact can not be proven, though it seems reasonable to suppose that it was the same family. On the other hand, it can not be disproven. Doubtless, most observers have known particular spots where, in the proper season, the *hoo! hoo!* of the Barred Owl is heard year after year; and, even if the nesting-site is not known, the locality is looked upon as the home of a single pair of birds.

Our own Owl family has either moved away or else has fallen victim to the many people always willing to "try a shot," as they say, at almost any bird, but, particularly, at one as large as a Barred Owl. The old maple, which had stood so many years, and, apparently, had furnished shelter to many birds and animals long before I found it, is now gone; succumbing, as many another home tree has done, to the so-called improvements, commended by so many and, unfortunately, regretted by only a few.



IMMATURE NIGHT HERON
Flashlight by Henry R. Carey, Portsmouth, N. H.

The Brown Thrasher

By CHARLES E. HEIL, Needham, Mass.

THE Brown Thrasher is a common, every-day bird, from May to September, in West Roxbury, Roslinda'le, and Needham, Massachusetts. It arrives in this vicinity about the first week in May; a few may sometimes be seen during the last week of April, but so far as I have observed, this is unusual. They generally arrive in pairs, and, when first seen among the undergrowth of pasture and roadside, are very shy and suspicious, and show no sign of that bravery which some of them later display in defense of their young. As they flit across the road, from thicket to thicket, at this time of the year, they frequently make me think of a reddish wind-blown leaf.

Some of the birds begin housekeeping a few days after their arrival, as I have found a bird sitting on four eggs on May 10. Nests are composed of coarse twigs, bark and dead leaves, and, at times, dry grass is used; the lining is generally fine roots; rarely, it is a combination of fine roots and fine twigs, and one nest I examined was lined with bark and dry grass. As a rule, the structures are well made, but some of the ground nests, when taken up, do not retain their shape. The favorite nesting localities are neglected, overgrown pastures and the borders of woods. Most of the nests I have found were placed on the ground, but they are frequently built in bushes and tangles of vines, and, on rare occasions, a nest may be found in a tree. Nests in bushes are not difficult to find, but those placed on the ground are very well concealed. A good way to find the latter is to pick out a likely looking pasture, beat over it, and, in this way, flush the bird, which is a close sitter, from the nest.

The eggs are whitish, with profuse and even specks of reddish brown; but, when seen from a distance, strongly resemble ovoids of some plain brown wood. I have never found more than five eggs in a nest; four are usually laid and deposition occurs daily. Incubation usually commences before the last egg is laid, and in each of three instances under my observation, lasted about thirteen days. In localities where enemies abound, the young leave the nest at the end of ten or twelve days, and conceal themselves in the underbrush until able to fly. At this period, they are much like the parents in color, but do not have the yellow iris, this coming about the time of the August molt. Usually, two broods are reared during the season, which, beginning in early May, continues until well into July. While the young are in the nest, the parents generally are very brave, flying at and, sometimes, hitting the intruder, and they look fierce enough with their staring yellow eyes and sharp curving bills, to frighten away many small boys who would, otherwise, rob their homes. Nuttall says: "One of the parents, usually the male, seems almost continually occupied in guarding against any dangerous intruder." The appearance of the human intruder is heralded by the whistled *Wheeu*, which is followed by the loud *kissing* note if the person continues to advance. If an enemy gets close to some nests, the owners seem



1. Nest and eggs of Brown Thrasher.
2. Brown Thrasher on nest.
3. Brown Thrasher, nine days old.
4. Brown Thrasher, twelve days old.
5. A tame Brown Thrasher.
6. Brown Thrasher on nest.
7. Young (seven days old) and parent

Photographed by Christina J. Heil

to lose all timidity, and, uttering their peculiar, hoarse cry, which sounds to me more like the sharp tearing of a piece of stout cloth than anything else, fly fiercely at him. I have had the skin of my hand broken by their sharp bills when examining nests containing young. This attack is conducted with such pathetic desperation and is so touching that it makes me feel heartily ashamed of myself (when I am its object) and I oftentimes beat a hasty retreat.

Much has been said and written in praise of the Brown Thrasher's song. Perched in some tree—tall or short, it matters not to him so long as he can stand among its topmost branches—he pours forth his medley. I must, to be entirely candid, confess that I do not like it. To my ear it is a confused and queer mixture of rapidly repeated notes. As Mr. Torrey says: "High notes and low notes, smooth notes and rough notes, all jumbled together in the craziest fashion." Nevertheless, it has the quality of sincerity, and I go away feeling that the singer has earnestly tried to do his best.

The food of this species consists of caterpillars, beetles, grasshoppers, and fruit of various kinds. In late August I have watched them among the rum-cherry trees, gulping down cherries—pulp and stone together.

Cats and blacksnakes undoubtedly destroy some of the young in my neighborhood. On one of my rambles I found a nest with the bird sitting on three eggs, at the foot of a white birch sapling in a pasture near some houses. Two days later the young came from the shells; the next day I found an empty nest and scattered about it were the long tail-feathers and many small brown ones of a Thrasher. I suspect the author of this tragedy was a cat which sometimes prowled about the pasture. This species begins to leave during September. By the end of October, all Thrashers (with the possible exception of some abnormal fellow) have departed for the South.



ROSE-BREADED GROSBEAK

This bird was benumbed by the cold and went to sleep while I was focusing it. To get this picture I had to touch the bird to wake him up. After a sun-bath of half an hour he flew up into a near-by tree and became quite lively. Golden's Bridge, N. Y., May 12, 1907. By Warren C. Tudbury.

A Bittern Study

By AGNES M. LEARNED, Boston, Mass.

THE first time that we saw the Bittern at Pleasant Valley Farm was late in the summer of 1906—too late to study his habits—so we resolved that we would see him as early in the spring as possible. We began to watch for him so early in the season that it seemed as though he would never come; but at last we were rewarded, when, on May 8, about 5 o'clock in the afternoon, he made his appearance in the cranberry bog quite near the house. We did not see him fly down, but heard the *booming*. The whole family had been listening for him, and at the first sound, the news went round that the Bittern had come! The younger members of the family hurried out, down to the edge of the bog, where we could see him very plainly. At our approach he became immovable, and we found that his ability to keep perfectly still was much greater than ours. As we were very anxious to see him at short range when he was booming, we decided that all but one of the party should leave the vantage point behind a big apple tree (which ever after we called the Bittern tree), and thus test the Bittern's ability to count!

The experiment was a success, and it was only a few moments before he began to grow less rigid (he had been standing all this time with his long neck thrust straight in the air, and, at a distance, looked more like a stick than he did like a bird); then, growing more confident, walked about a little, then standing perfectly still, he gazed at the water and seemed to meditate.

All at once, the feathers on his neck quivered, he looked as though he was taking one or two long, gulping breaths, his bill snapped loudly and quickly, and, with contortions which seemed ludicrous, he said *pump-a-lunk, pump-a-lunk, pump-a-lunk*. This was the beginning of our acquaintance with the Bittern, and we never tired of his company.

For many days he arrived about five in the afternoon; for quite a while we wondered how long he stayed, then a wakeful member of the family heard him in the wee sma' hours, and, later, the early riser of the family saw him in the brook that drains the bog. As the season advanced, he boomed with great vigor and many times at each performance; for instance, one evening he boomed seven times in succession; he also became less shy, and one afternoon we had the pleasure of seeing him mount a tussock of grass and perform. Sometimes his booming would sound like an old wooden pump, and sometimes like the driving of a stake. After the Whippoorwill arrived, the night was vocal with their alternate performances, and when, on rare occasions, they performed together, the effect was weird beyond description.

Although the Bittern came regularly about five o'clock every afternoon, we neither saw nor heard him come or go, for there was no "hurrying sound of wings" to announce his arrival or departure, and it was a marvel to us that so large a bird could fly so silently. One afternoon two of us decided that, if possi-

ble, we would see him alight in the bog; so about half an hour before we thought he would arrive from the lower meadow (where we could hear him, but not see him), we took our places under the Bittern tree and waited nearly an hour for him; then, duties calling us, we left, only to hear, before we were hardly up to the house, the familiar *pump-a-lunk* from the bog.

We had seen only one Bittern, and, as in our bird books there was no difference in the description of the male and female, we could not tell which it was, but supposed it was the male.

The cranberry bog lies northwest of the house, and southeast of the house there is a pretty little pond, made by damming up the trout brook that crosses the farm. At one point this brook runs within one hundred feet of the house, and here we saw, one perfect Sunday morning in June (the 9th), the Bittern; but not as we had seen him before, for on his back he wore two clusters of beautiful white plumes that fluttered softly in the morning air.

How proud he was! He stood perfectly still; he waded in the brook; he walked slowly on its bank, all the time as conscious of his adorning as any beau, and perfectly willing that the entire family should admire him—from the piazza. He posed under the old apple tree beside the brook; the combination of grasses, gnarled tree trunk and Bittern making a veritable Japanese scene.

We were surprised and delighted, and went at once to our bird books to see what the beautiful white feathers were called; but, alas, not a book mentioned them! and later research at the library failed to reveal any information. Only one spoke of them and said that Bitterns did *not* wear nuptial plumes. After much thought, we decided that the Bittern must be like its relatives, the Egrets, and wear nuptial plumes. We thought that the white feathers, or plumes, grew from the region of the scapulars; there were several on each side, they were not over five inches long and not less than three, and were soft and downy, and with the aid of a glass we could see them flutter in the light wind.

Many questions filled our minds: Had this beautiful creature just arrived? Would it stay awhile? Where was the solitary bird that had been with us so long? Was it still here, or had it shyly hidden itself away?

At least two of these questions were answered, for the next morning we saw the Bittern of the Decoration stalking majestically through the cranberry bog, and a few days later flushed from the side of the pond a Bittern with no white plumes, so we felt sure there must be two.

After this we neither heard nor saw the Bitterns for a long time, but we hoped they nested in the cranberry bog. Our hopes were realized, for when the grass around the bog was cut, the 30th of July, the men saw two small Bitterns in the grass. One of them, sad to relate, was caught by the mowing machine and killed before the driver knew of its presence, and, in order to save the life of the other, who courted a like fate, he caught it, tied its legs and laid it in a safe place, and, later, brought them both to the house. A Bittern on the lawn! In our wildest dreams we had never thought of that!

He was a most ungainly looking creature as he squatted on the lawn, wings outspread and bill snapping, ready to defend himself against any foe. His feathers were all quite buffy and were fluffy about the shoulders; his legs and feet were bright green sh yellow or yellowish green, and very, very clean. His bill was yellow and he had a yellow ring about the eye.

We meant to take him back to his home, but he escaped and went down to the brook. The next day we saw the old bird fly up toward the pond and we supposed she had found him.

One day shortly after the capture of the young Bittern, we went out to the pond to see the water-lilies, and tried to get some that grew near the bank (the pond was so low that there was a muddy margin of a foot or more all around it). Stooping to get a perfect flower, we were startled by a peculiar sound—*k-r-r-r-r-r*. We could not imagine what it could be; nothing was to be seen, so we moved along the side cautiously, when *k-r-r-r-r-r* came the sound again. This time we decided that it came from a clump of water-grasses; so, very cautiously, we advanced and, for the third time, heard *k-r-r-r-r-r*, and looking over the clump saw the young Bittern squatting on the mud, wings outspread, on the alert for the enemy.

The second time we saw one of the old birds fly up the brook to the pond, we hurried along to get another glimpse; but not a bird could we see, so turned away reluctantly, giving one last backward look. That moment of turning away was the old bird's opportunity (although how she knew we were walking away will always be a mystery), for, as we gave that last backward look, we saw her make a long arm of her bill and place some dainty tidbit far down the throat of her offspring, looking for all the word, as she did so, like Mrs. Squeers administering sulphur and molasses to the little boys.

The charm of the Bittern drew us often to the pond, and one day when there was no wind to ruffle the water and no clouds to dull the reflections, we seated ourselves to admire the natural beauties of the place. The trees, shrubs and rocks on the opposite side of the pond were perfectly reflected in its mirror-like surface, and we were lost in admiration of the scene, and almost forgot the Bittern, when suddenly we realized that she was part of the landscape. How daintily she moved, picking her way in and out between the rocks, at times so perfectly reflected in the water that we could see the markings on the feathers. She was in no haste and would lift her foot out of the water in such a way that there was not a ripple made. When she reached a point exactly opposite us, she seemed to realize that she was being watched and flew slowly back to the head of the pond, which, with its muddy margin, made an excellent feeding ground, and it was here that we flushed the Bittern for the last time that season.



AMERICAN BITTERN ON NEST
Photographed by R. M. Strong

A Bittern Photograph

(See preceding page)

I SEND you by this mail a print from a negative made by myself at Nippersink Lake, Ill., on June 8, 1907, of an American Bittern on its nest. While pushing a boat through some marsh vegetation in this lake, I discovered the bird as seen in the picture. I was accompanied by students in bird-study from the University of Chicago. We approached the nest carefully, taking pictures at two or three intervals and constantly expecting the bird to fly. Finally, we drew our boats up within a few feet of the nest.

I had, unfortunately, used my last plate, but was able to borrow a camera from a student. The camera being of strange model, several minutes were required in getting ready for a picture. This one was finally obtained, to the great relief of the students and myself. Still the Bittern sat motionless on its nest, except for a very slight shifting of the head in following my movements. At length, in order to see the eggs, it seemed necessary to lift the bird. When my hand was within less than eighteen inches of the nest, fear overcame the brooding instinct and the four eggs were abruptly exposed to view. A week later I visited the nest again. This time the bird permitted a picture at a boat's length, approximately, but flew when we approached within eight feet of the nest.

R. M. STRONG.



GREEN HERON AND NEST
Photographed by George Shiras, 3d.

Nesting Habits of the Henslow's Sparrow

By E. SEYMOUR WOODRUFF

HENSLOW'S SPARROW (*Ammodramus henslowi*), though generally considered a rare bird in New England, is a regular and not uncommon summer resident in the vicinity of Litchfield, Conn. Because of their extremely shy and retiring habits, these birds are easily overlooked, even in a locality where they are not uncommon; but, if their song be once identified, it is surprising to find how often and in how many different places it is heard,—places where their presence had never been previously suspected. The song is unique, and, once known, can never be mistaken for that of any other bird. To my ear it sounds exactly like the syllables *cheer-r-r-up*, with an upward inflection on the last syllable.

Their favorite haunts are marshy hillside meadows covered with a fairly thick growth of spirea, shrubby cinquefoil and other shrubs, though, occasionally, they will be found in bog swamps in the river bottoms. They are very difficult to flush, preferring to skulk along the ground through the low growth, where it is almost impossible to see them. If one should be flushed, it will take, as a rule, but a very short flight, keeping close to the ground with a somewhat undulating and rapid flight, and then, dropping suddenly behind a tussock or plant, disappear completely.

Though I have located many pairs of breeding birds during the past fifteen years, and have searched for their nests most patiently, my search had always been unrewarded until one day in the latter part of June, 1906. The way in which I found this nest taught me an interesting habit of this bird, and, at the same time, afforded me a probable explanation of why my previous searches had always been in vain.

Again and again I have flushed a Henslow's Sparrow from under my feet, and, each time, thought that at last I had found its nest; but, careful search would reveal nothing. So I would give it up for the time being, but on returning several times in the same day, or even on several different days, I would almost invariably flush the bird again from either the same spot or from one within a few feet of it. The fact that the bird would not always flush up from exactly the same spot made me believe that it ran a few feet from its nest each time before flushing; but a most careful search of every square inch of the ground within a circle of twenty or thirty feet in diameter would always result in failure to find it.

In June, 1906, I located a pair of Henslow's Sparrows in a narrow marsh in a pasture near the top of a high ridge. The marsh was covered with a growth of sphagnum moss, fine sedge grasses, and clumps of fern, spirea and sheep-laurel in the drier spots. For two days in succession (June 21 and 22, 1906), I had the same experience in regard to flushing the bird as that described above, but I finally came to the conclusion that it was the male that I was continually

flushing, for whenever I heard the familiar *cheer-r-r-up*, it seemed to invariably come from that very same spot. So I gave up all hope of finding his nest there and wandered on up through the marsh. When I had reached a spot fully sixty yards from where I had always seen the male Henslow's Sparrow, I heard a bird chipping close to me down in the thick marsh grass and small ferns. I suspected



HENSLOW'S SPARROW, FROM A MOUNTED SPECIMEN

at once that this might be the female objecting to my presence in the neighborhood, though it was impossible to see her and I could not flush her, for when I walked toward the sound, she would run a few feet to one side and start chipping again. So I crossed over to the other side of the marsh and hid myself behind a small bush in hopes that she might then show herself, and, at the same time, disclose the location of her nest. After waiting some time, my attention was attracted to a bird flying up the marsh which lit on the tip of a sprig of spirea for a minute and then dove down into the grass near where I had heard the female chipping. In a minute or two it reappeared and flew rapidly back to the clump of ferns and shrubs where I had previously flushed the male Henslow's Sparrow. I recrossed the marsh in order to be nearer to the spot which he had visited, and watched again. In about fifteen minutes I saw him flying up the marsh from the same direction; and this time I perceived that he had a worm in his bill, which confirmed my suspicion that he was visiting his nest. He repeated the same performance as before,—perching on the tip of a spring of spirea, he looked about for a minute, evidently in order to see whether the coast was clear, and then darted down into the grass about ten feet away. In order to be certain that I had marked the location of his nest exactly, I remained where I was until after the male had visited the nest for the third time. Each time, on leaving

the nest, he flew rapidly back to the same place, and, alighting on the tip of some shrub, sang lustily half a dozen times before dropping down to the ground to search for more food.

During the whole of this time, which covered about an hour altogether, the female did not show herself once, but kept up a constant chipping down in the grass. The nest, which I now found without any trouble, was a slight, flimsy structure, composed of dead grass imbedded in the damp moss under a thick patch of small ferns and grass, and contained four young birds about one week old.

The fact which interested me, even more than that I had at last found the long-sought-for nest of a Henslow's Sparrow, was this probable habit of the male, restricting himself to some small, favorite feeding-ground at a considerable distance from the site of his nest, to which he invariably returned after feeding his young. I believe that this is probably always the case and, therefore, a reasonable explanation of why my previous searches had always been so fruitless. Another interesting habit of the male was that he sang only immediately after returning from feeding his young and before beginning to search for more food, and during the rest of the time remained absolutely silent.

Whether the female always remains close to the nest, as she did in this case, I am unable to say, but the probabilities are that I had merely frightened her off the nest while she was brooding her young and that she was too shy to return to it.

This experience taught me the folly of wasting time looking for a nest of a Henslow's Sparrow close to where the male establishes himself, for the chances are that the nest is from fifty to one hundred yards away.



PUFFINS ON BIRD ROCK, GULF ST. LAWRENCE
Photographed by Edwin Beaupré

The Migration of Flycatchers

FOURTH PAPER

Compiled by Professor W. W. Cooke, Chiefly from Data
in the Biological Survey

With Drawings by LOUIS AGASSIZ FUERTES and BRUCE HORSFALL

YELLOW-BELLIED FLYCATCHER

This species winters south of the United States and is one of the latest spring migrants. It is scarcely known in the southeastern United States south of Virginia and east of the Allegheny mountains.

SPRING MIGRATION

PLACE	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
Washington, D. C.	16	May 14	May 9, 1902
Central Massachusetts.	3	May 19	May 15, 1886
Monadnock, N. H.	3	May 20	May 18, 1897
Northern Vermont.	5	May 20	May 16, 1897
Southern Maine.	6	May 26	May 23, 1900
St. John, N. B.	8	May 25	May 19, 1889
Lake Mistassini, Que. ....	..	.....	June 2, 1885
Bayou Sara, La. ....	..	.....	April 26, 1887
Biloxi, Miss. ....	..	.....	April 30, 1904
Athens, Tenn. ....	..	.....	April 25, 1905
Lexington, Ky. ....	..	.....	May 1, 1903
St. Louis, Mo.	5	May 16	May 8, 1884
Chicago, Ill.	9	May 15	May 11, 1900
Oberlin, Ohio. ....	..	.....	May 9, 1904
Ottawa, Ont.	6	May 23	May 19, 1906
Grinnell, Ia.	4	May 18	May 14, 1886
Lanesboro, Minn.	4	May 23	May 19, 1872
Athabaska Lake, Alberta. ....	..	.....	June 3, 1901

The average date of the last seen in spring at Washington, D. C., is May 26, latest, May 30, 1891; Chicago, Ill., average May 24, latest May 28, 1906.

FALL MIGRATION

A very early fall migrant was seen July 28, 1859, at Washington, D. C., where the average of arrival date in the fall is August 17; the average of the last seen at St. John, N. B., is September 2, latest September 4, 1892; average at Washington, D. C., September 16, latest October 6, 1881; last at Biloxi, Miss., October 16, 1903. Some unusually late birds were noted November 29, 1876, at Reading, Mass., and December 1, 1876, at Newton, Mass.

GREEN-CRESTED FLYCATCHER

This is the only one of the small Flycatchers that breeds in the southeastern United States. It winters south of the United States, and the following dates

of arrival show that it reaches Louisiana earlier than it appears in either Florida or Texas. No proof could be stronger that the Louisiana birds arrive by a direct flight across the Gulf of Mexico.

SPRING MIGRATION

PLACE	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
Whitfield, Fla. ....	--	.....	April 6, 1903
Southern Georgia	3	April 17	April 3, 1904
Raleigh, N. C.	12	April 26	April 20, 1894
Washington, D. C.	22	May 7	May 1, 1892
Waynesboro, Pa.	3	May 5	April 25, 1891
Beaver, Pa.	5	May 9	May 6, 1902
Germantown, Pa.	4	May 7	May 2, 1888
Englewood, N. J.	4	May 16	May 5, 1897
Lockport, N. Y. ....	--	.....	May 13, 1888
Southern Louisiana	9	April 11	March 30, 1904
Helena, Ark.	10	April 25	April 20, 1902
Athens, Tenn.	5	April 28	April 24, 1904
Eubank, Ky.	6	April 23	April 18, 1890
St. Louis, Mo.	5	April 28	April 27, 1882
Waterloo, Ind. (near)	8	May 7	May 1, 1896
Oberlin, Ohio	10	May 9	May 4, 1899
Chicago, Ill.	5	May 10	May 6, 1899
Plymouth, Mich.	8	May 15	May 10, 1892
Petersburg, Mich.	6	May 15	May 8, 1889
Hillsboro, Ia.	5	May 10	May 5, 1897
Lanesboro, Minn. ....	--	.....	May 28, 1884
San Antonio, Tex.	4	April 16	April 14, 1890
Northern Texas.	6	April 24	April 20, 1885
Central Kansas	4	May 6	May 2, 1906

FALL MIGRATION

Some dates of departure in the fall are: Oberlin, Ohio., September 21, 1906; Chicago, Ill., September 27, 1906; Hillsboro, Ia., September 19, 1898; Lawrence, Kans., September 10, 1905; Beaver, Pa., average September 25, latest September 29, 1899; Washington, D. C., September 15, 1907; Raleigh, N. C., average September 7, latest September 11, 1893; Tallahassee, Fla., October 9, 1904; Athens, Tenn., October 11, 1904; Ariel, Miss., October 20, 1897; Covington, La., October 27, 1899.

TRAILL'S AND ALDER FLYCATCHERS

This species has been separated into two forms,—an eastern, called the Alder Flycatcher, and a western, known as the Traill's, or the Little Flycatcher. The two forms come together in the middle of the Mississippi Valley. The species winters south of the United States and in its migration it shuns the southeastern United States, south of North Carolina.

SPRING MIGRATION

PLACE	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
Raleigh, N. C. ....	..	.....	May 14, 1902
Washington, D. C.	10	May 15	May 8, 1906
Randolph, Vt.	6	May 25	May 17, 1889
St. Johnsbury, Vt.	3	May 23	May 21, 1903
Monadnock, N. H.	3	May 23	May 20, 1903
Southern Maine	7	May 26	May 21, 1906
Quebec, Can.	5	June 2	May 25, 1905
Scotch Lake, N. B.	3	May 27	May 23, 1900
North River, P. E. I.	3	June 3	May 23, 1887
Godbout, Que. ....	..	.....	June 7, 1883
St. Louis, Mo.	5	May 5,	April 29, 1884
Odin, Ill.	4	May 6	May 3, 1891
Oberlin, Ohio	11	May 14	May 7, 1904
Plymouth, Mich.	7	May 16	May 11, 1892
Ottawa, Ont.	9	May 24	May 14, 1905
Southern Iowa	7	May 10	April 30, 1890
Central Iowa	5	May 19	May 17, 1886
Lanesboro, Minn.	4	May 24	May 20, 1892
Central Kansas	4	May 6	May 2, 1906
Aweme, Manitoba ....	..	.....	May 26, 1903
Ft. Resolution, Mackenzie ....	..	.....	June 19, 1903
Carlisle, N. M. ....	..	.....	April 16, 1890
Ft. Lyon, Colo.	3	May 12	May 9, 1884
Yuma, Colo.	3	May 21	May 18, 1905
Los Angeles, Cal. ....	..	.....	May 4, 1895
Southern British Columbia	3	May 22	May 18, 1889

FALL MIGRATION

On the return migration in the fall, the first was at Washington, D. C., August 16, 1886; the average date of arrival in southern Mississippi, August 30, earliest August 27, 1896. Some dates of the last seen are: Yuma, Colo., September 10, 1906; Lawrence, Kans., September 10, 1905; Grinnell, Ia., average September 5, latest September 10, 1889; Ottawa, Ont., September 4, 1905; Beaver, Pa., average September 2, latest September 7, 1887; Washington, D. C., September 17, 1890, and Raleigh, N. C., September 21, 1893.

LEAST FLYCATCHER

This species spends the winter farther north probably than any other of the eastern members of its genus. It is found at this season in Yucatan and in northern Mexico. Indeed, it may possibly winter occasionally in southern Texas, since one was taken February 7, 1880, near the mouth of the Rio Grande. It migrates earlier in the spring than the other small Flycatchers, and that it is well known is attested by the large number of notes that have been contributed concerning its movements.

SPRING MIGRATION

PLACE	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
White Sulphur Springs, W. Va.	7	April 24	April 19, 1896
Waverly, W. Va. ....	..	.....	April 25, 1904
Washington, D. C.	16	May 2	April 20, 1881
Beaver, Pa.	7	April 20	April 22, 1891
Englewood, N. J.	11	May 2	April 30, 1905
Alfred, N. Y.	19	May 3	April 29, 1902
Ballston Spa, N. Y.	13	May 3	April 30, 1905
Hadlyme, Conn.	9	May 1	April 26, 1899
Hartford, Conn.	15	May 1	April 27, 1902
Providence, R. I.	9	May 1	April 27, 1905
Taunton, Mass.	6	April 29	April 26, 1889
Melrose, Mass.	9	April 30	April 25, 1897
West Roxbury, Mass.	7	May 1	April 25, 1897
Beverly, Mass.	8	May 5	April 30, 1899
Eastern Massachusetts.	20	April 30	April 25, 1897
South Randolph, Vt.	6	May 3	May 1, 1896
St. Johnsbury, Vt.	9	May 4	April 29, 1902
Southern New Hampshire.	21	May 3	April 29, 1898
Southern Maine	18	May 4	April 29, 1902
East Sherbrooke, Quebec ....	..	.....	May 6, 1905
Scotch Lake, N. B.	5	May 9	May 8, 1905
New Orleans, La. ....	..	.....	March 30, 1902
Biloxi, Miss. ....	..	.....	April 9, 1904
San Antonio, Tex.	3	April 16	April 14, 1885
Central Kansas	4	May 2	May 1, 1906
St. Louis, Mo.	6	April 30	April 26, 1888
Oberlin, Ohio	9	May 1	April 27, 1897
Waterloo, Ind. (near).	8	May 2	April 22, 1902
Petersburg, Mich.	10	May 2	April 29, 1892
Southwestern Ontario	14	May 3	April 28, 1900
Kearney, Ont.	5	May 11	May 9, 1901
Ottawa, Ont.	17	May 13	May 5, 1905
Hillsboro, Iowa	5	May 2	April 24, 1897
Central Iowa	15	May 4	April 28, 1888
Lanesboro, Minn.	6	May 4	April 30, 1888
Minneapolis, Minn.	10	May 7	May 2, 1905
Aweme, Manitoba	9	May 16	May 11, 1906
Indian Head, Sask. ....	..	.....	May 12, 1906
Yuma, Colo. ....	..	.....	May 13, 1905
Huntley, Mont. ....	..	.....	May 13, 1886
Red Deer, Alberta ....	..	.....	May 16, 1893
Fort Simpson, Mackenzie ....	..	.....	May 24, 1904

FALL MIGRATION

In view of the fact that it is to winter but a short distance south of the United States, it starts early on its fall migration. The average of the last seen at Ottawa, Ont., is August 22, latest August 30, 1888; Scotch Lake, N. B., average September 6, latest September 10, 1906; Chicago, Ill., average September 17, latest September 30, 1895.

The Massachusetts Audubon Society's Bird Lists

THE Massachusetts Audubon Society continues to develop in its members a practical interest in birds by supplying them with blanks on which to record the species observed during the year in Massachusetts. The best ten lists received by the secretary of the Society for the year ending December 31, 1907, were made by the following members: Lidian E. Bridge, West Medford, 201 species; James L. Peters, Jamaica Plain, 191 species; William L. Barker, Jamaica Plain, 153 species; Barron Brainerd, Brookline, 134 species; Bertha Langmaid, Boston, 128 species; Louise Howe, Brookline, 122 species; Samuel Dowse Robbins, Belmont, 120 species; Frank Seymour, Waverly, 83 species; Edith Seymour, Waverly, 79 species; W. Brooks Brown, Melrose, 43 species; Elizabeth K. Brown, Melrose, 32 species. The two lists first mentioned are published herewith:

Name of Species	List of Birds observed by Lidian E. Bridge, West Med- ford, Mass., from January 1, 1907, to January 1, 1908.		List of Birds observed by James L. Peters, Jamaica Plain, from January 1, 1907, to January 1, 1908.	
	Locality	Date	Locality	Date
Holbøll's Grebe.....	Nahant.....	Feb. 16	Ipswich.....	Nov. 16
Horned Grebe.....	Nahant.....	Feb. 16	Watertown....	Jan. 5
Pied-billed Grebe.....	Middlesex Fells	Oct. 8	Franklin Park.	April 19
Loon.....	Nahant.....	Jan. 11	Nahant.....	Oct. 11.
Red-throated Loon.....	Nahant.....	Oct. 10	Nahant.....	Oct. 11
Black Guillemot.....	Nahant.....	Oct. 10	Nahant.....	Dec. 27
Brünnich's Murre.....	Nahant.....	Dec. 20	Nahant.....	Nov. 2
Razor-billed Auk.....	Nahant.....	Jan. 11	Nahant.....	Nov. 23
Kittiwake.....	Nahant.....	Oct. 28	Ipswich.....	Nov. 16
Great Black-backed Gull.....	Nahant.....	Jan. 5	Boston.....	Jan. 12
Herring Gull.....	Medford.....	Jan. 4	Boston.....	Jan. 3
Ring-billed Gull.....	Nahant.....	Oct. 18	Nahant.....	Oct. 11
Laughing Gull.....	Nantucket.....	July 28		
Bonaparte's Gull.....	Ipswich.....	Aug. 17	Ipswich.....	Nov. 16
Common Tern.....	Nantucket.....	July 28	Boston.....	Sept. 19
Arctic Tern.....	Wood's Hole.....	July 27		
Roseate Tern.....	Nantucket.....	July 28		
Least Tern.....	Nantucket.....	July 29		
Wilson's Petrel.....			Mass. Bay.....	Sept. 19
Gannet.....	Ipswich.....	Oct. 12	Ipswich.....	Oct. 19
Double-crested Cormorant.....	Ipswich.....	Oct. 12	Ipswich.....	Oct. 19
American Merganser.....	Middlesex Fells	April 14	Middlesex Fells	April 19
Red-breasted Merganser.....	Nahant.....	Feb. 16	Nahant.....	Mar. 16
Hooded Merganser.....	Middlesex Fells	Oct. 20	Middlesex Fells	Oct. 20
Mallard.....	Middlesex Fells	Oct. 27	Middlesex Fells	April 19
Black Duck.....	Middlesex Fells	April 3	West Roxbury.	Mar. 18
Red-legged Black Duck.....	Middlesex Fells	April 3	Cambridge....	Mar. 9
Green-winged Teal.....	Middlesex Fells	Nov. 23	Middlesex Fells	Nov. 23
Pintail.....	Middlesex Fells	Oct. 19	Middlesex Fells	Nov. 30
Wood Duck.....			Brookline.....	May 19
Redhead.....	Jamaica Pond.	Oct. 25	Jamaica Plain.	Oct. 25
Scaup Duck.....	Nahant.....	Mar. 16	Nahant.....	Dec. 24
Lesser Scaup Duck.....	Cambridge.....	Nov. 14	Jamaica Plain.	Oct. 23

Name of Species	List of Birds observed by Lidian E. Bridge, West Med- ford, Mass., from January 1, 1907, to January 1, 1908.		List of Birds observed by James L. Peters, Jamaica Plain, from January 1, 1907, to January 1, 1908.	
	Locality	Date	Locality	Date
American Golden-eye	Nahant	Jan. 5	Boston	Jan. 5
Buffle-head	Nahant	Mar. 9	Nahant	Mar. 16
Old-squaw	Nahant	Jan. 5	Nahant	Mar. 16
American Eider .....	.....	.....	Vineyard Sound	Nov. 30
American Scoter	Nahant	Nov. 2	Nahant	Mar. 16
White-winged Scoter	Nahant	Jan. 11	Nahant	Mar. 16
Surf Scoter	Nahant	Nov. 2	Ipswich	Nov. 16
Ruddy Duck	Nantucket	July 29	Jamaica Plain	Oct. 19
Canada Goose	Medford	Nov. 18	West Tisbury	Nov. 29
American Bittern	Ipswich	April 19	Wayland	June 15
Least Bittern	Cambridge	June 11	.....	.....
Great Blue Heron	Medford	April 28	Ipswich	Oct. 19
Green Heron	Cohasset	May 30	Franklin Park	May 11
Black-crowned Night Heron	Middlesex Fells	April 28	Cambridge	April 12
Virginia Rail	Cambridge	June 8	Cambridge	June 8
Sora	Cambridge	June 11	Cambridge	June 8
American Coot	Middlesex Fells	Nov. 24	Jamaica Plain	Oct. 6
Wilson's Snipe	Cambridge	April 15	Cambridge	April 12
Dowitcher	Ipswich	Aug. 24	.....	.....
Knot	Ipswich	Aug. 17	.....	.....
Pectoral Sandpiper	Ipswich	Aug. 24	.....	.....
White-rumped Sandpiper	Ipswich	May 24	.....	.....
Least Sandpiper	Ipswich	May 24	Ipswich	May 25
Red-backed Sandpiper	Ipswich	Oct. 30	Nahant	Sept. 28
Semipalmated Sandpiper	Ipswich	May 28	Ipswich	May 25
Sanderling	Ipswich	Aug. 17	Nahant	Sept. 28
Greater Yellow-legs	Medford	May 10	Ipswich	May 25
Yellow-legs	Ipswich	Aug. 17	.....	.....
Solitary Sandpiper	Concord	May 18	.....	.....
Spotted Sandpiper	Waverly	May 18	Newton	April 25
Black-bellied Plover	Ipswich	May 24	Ipswich	May 25
American Golden Plover	Middlesex Fells	Oct. 20	.....	.....
Semipalmated Plover	Ipswich	May 28	Nahant	Sept. 28
Piping Plover	Nantucket	July 29	.....	.....
Ruddy Turnstone	Ipswich	Aug. 17	.....	.....
Bob-white	*Arboretum	June 22	Arboretum	April 21
Ruffed Grouse	Middlesex Fells	April 12	Arboretum	Jan. 1
Mourning Dove	Ipswich	Mar. 23	Bedford	May 18
Marsh Hawk	Ipswich	Mar. 23	Wayland	June 15
Sharp-shinned Hawk	Medford	April 26	Arboretum	May 5
Cooper's Hawk	Middlesex Fells	April 12	Franklin Park	May 12
Red-tailed Hawk	Cambridge	April 15	Natick	Mar. 30
Red-shouldered Hawk	Middlesex Fells	April 12	West Roxbury	Jan. 5
Broad-winged Hawk .....	.....	.....	West Roxbury	Mar. 24
Am. Rough-legged Hawk	Middlesex Fells	Jan. 20	West Tisbury	Nov. 28
Bald Eagle .....	.....	.....	Braintree	June 17
Pigeon Hawk	Squantum	Nov. 9	Waltham	Mar. 23
American Sparrow Hawk	Medford	Mar. 30	Franklin Park	Feb. 8
American Osprey	Middlesex Fells	April 14	Jamaica Plain	April 17
Short-eared Owl .....	.....	.....	Nahant	Oct. 26
Screech Owl	Medford	May 10	.....	.....
Great-horned Owl .....	.....	.....	Concord	Dec. 28
Yellow-billed Cuckoo	Middlesex Fells	May 26	Arboretum	June 16
Black-billed Cuckoo	Middlesex Fells	May 23	Arboretum	May 18
Belted Kingfisher	Middlesex Fells	April 25	Franklin Park	April 14

*Wherever the word Arboretum occurs, it refers to Arnold Arboretum

List of Birds observed by Lidian E. Bridge, West Med- ford, Mass., from January 1, 1907, to January 1, 1908.			List of Birds observed by James L. Peters, Jamaica Plain, from January 1, 1907, to January 1, 1908.		
Name of Species	Locality	Date	Locality	Date	
Hairy Woodpecker.....	Middlesex Fells	April 7	Weston	Mar. 23	
Downy Woodpecker	Medford	Feb. 17	Franklin Park..	Jan. 1	
Yellow bellied Sapsucker.....	.....	.....	Franklin Park ..	Oct. 5	
Northern Flicker	Medford	Feb. 13	Franklin Park ..	Jan. 1	
Whippoorwill .....	.....	.....	Jamaica Plain ..	May 18	
Nighthawk	Medford	Aug. 31	Marlboro.....	May 30	
Chimney Swift	Medford	May 16	Jamaica Plain ..	May 12	
Ruby-throated Hummingbird ..	Medford	May 17	Jamaica Plain ..	May 12	
Kingbird	Middlesex Fells	May 15	Jamaica Plain ..	May 12	
Crested Flycatcher	Cohasset	May 30	Jamaica Plain ..	May 19	
Phoebe	Middlesex Fells	Mar. 24	Weston	Mar. 23	
Olive-sided Flycatcher	Greylock	June 15	.....	.....
Wood Pewee	Middlesex Fells	May 12	Concord	May 18	
Yellow-bellied Flycatcher.....	Greylock	June 15	.....	.....
Alder Flycatcher	Greylock	June 15	Marlboro.....	May 30	
Least Flycatcher	Middlesex Fells	May 12	Franklin Park ..	May 11	
Horned Lark	Nahant	Jan. 5	Nahant	Jan. 12	
Prairie Horned Lark	Ipswich	Aug. 24	Ipswich	Oct. 19	
Blue Jay	Medford	Jan. 2	Franklin Park ..	Jan. 1	
American Crow	Medford	Jan. 2	Franklin Park ..	Jan. 1	
Bobolink	Medford	May 13	West Roxbury ..	Mar. 12	
Cowbird	Medford	April 5	Franklin Park ..	Mar. 24	
Red-winged Blackbird	Medford	Mar. 24	Franklin Park ..	Mar. 17	
Meadowlark	Medford	Mar. 27	West Roxbury ..	Mar. 3	
Orchard Oriole.....	Ipswich	May 28	Ipswich	May 25	
Baltimore Oriole	Medford	May 13	Franklin Park ..	May 14	
Rusty Blackbird	Medford	April 8	Waltham	April 6	
Bronzed Grackle	Medford	Mar. 17	West Roxbury ..	Mar. 16	
Canadian Pine Grosbeak.....	Medford	Jan. 6	Waltham	Jan. 5	
Purple Finch	Medford	April 19	Franklin Park ..	Jan. 6	
American Crossbill	Ipswich	Mar. 23	Jamaica Plain ..	Jan. 5	
White-winged Crossbill	Middlesex Fells	Jan. 6	Franklin Park ..	Jan. 1	
Redpoll	Medford	Feb. 17	Waltham	Jan. 5	
American Goldfinch	Medford	Feb. 10	Arboretum	Jan. 1	
Pine Siskin	Middlesex Fells	April 5	West Roxbury ..	Jan. 20	
Snowflake	Nahant	Mar. 16	Nahant	Oct. 26	
Lapland Longspur.....	Ipswich	Mar. 23	Ipswich	Nov. 16	
Vesper Sparrow	Medford	Mar. 30	Belmont	April 12	
Ipswich Sparrow	Ipswich	Mar. 23	Ipswich	Oct. 19	
Savanna Sparrow	Medford	April 26	Cambridge	April 12	
Grasshopper Sparrow	Concord	June 7	Concord	June 21	
Henslow's Sparrow	Norwood	June 1	Norwood	June 1	
Sharp-tailed Sparrow.....	Ipswich	May 24	Ipswich	May 28	
White-crowned Sparrow	Concord	May 16	Franklin Park ..	Oct. 5	
White-throated Sparrow	Medford	April 26	West Roxbury ..	Jan. 5	
Tree Sparrow	Medford	Feb. 17	Franklin Park ..	Jan. 5	
Chipping Sparrow	Medford	Mar. 30	Dover	April 4	
Field Sparrow	Medford	April 12	Dover	April 4	
Slate-colored Junco	Middlesex Fells	Feb. 17	Franklin Park ..	Jan. 7	
Song Sparrow	Medford	Mar. 17	Arboretum	Jan. 1	
Lincoln's Sparrow	Boston	May 20	Boston	May 21	
Swamp Sparrow	Middlesex Fells	Mar. 30	West Roxbury ..	April 6	
Fox Sparrow	Medford	Mar. 24	Franklin Park ..	Mar. 17	
Towhee	Medford	April 26	Franklin Park ..	May 1	
Rose-breasted Grosbeak.....	Medford	May 10	Jamaica Plain ..	May 14	

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	Locality	Date	Locality	Date
Indigo Bunting.....	Medford	May 19	Franklin Park ..	May 14
Scarlet Tanager	Medford	May 19	Franklin Park ..	May 14
Purple Martin	Concord	June 7	Concord	May 18
Cliff Swallow	Concord	May 16	Concord	May 18
Barn Swallow	Middlesex Fells	May 1	Franklin Park ..	April 27
Tree Swallow	Medford	April 25	Franklin Park ..	April 14
Bank Swallow	Concord	May 18	Jamaica Plain ..	May 12
Cedar Waxwing	Medford	Mar. 19	Roxbury	Jan. 25
Northern Shrike	Medford	Jan. 8	Franklin Park ..	Jan. 20
Red-eyed Vireo.....	Middlesex Fells	May 15	Franklin Park ..	May 14
Warbling Vireo.....	Medford	May 14	Concord	May 18
Yellow-throated Vireo	Medford	May 14	Franklin Park ..	May 16
Blue-headed Vireo.....	Middlesex Fells	May 12	Concord	May 18
White-eyed Vireo.....	Middlesex Fells	May 12	Braintree	June 17
Black and White Warbler	Middlesex Fells	April 28	Franklin Park ..	April 27
Golden-winged Warbler	Middlesex Fells	May 15	Franklin Park ..	May 18
Nashville Warbler	Middlesex Fells	May 15	West Roxbury ..	May 12
Northern Parula Warbler....	Middlesex Fells	May 12	Franklin Park ..	May 18
Yellow Warbler	Medford	May 10	Franklin Park ..	May 5
Black-throated Blue Warbler	Middlesex Fells	May 19		
Myrtle Warbler	Middlesex Fells	Mar. 30	Arboretum	Jan. 6
Magnolia Warbler	Middlesex Fells	May 19	Franklin Park ..	May 16
Chestnut-sided Warbler.....	Middlesex Fells	May 12	Franklin Park ..	May 16
Bay-breasted Warbler.....	Middlesex Fells	June 2	Arboretum	May 26
Black-poll Warbler	Medford	May 18	Franklin Park ..	May 18
Blackburnian Warbler	Medford	May 21	Franklin Park ..	May 18
Black-throated Green Warb'r	Middlesex Fells	May 8	West Roxbury ..	May 12
Pine Warbler	Middlesex Fells	April 5	West Medford ..	April 19
Palm Warbler.....	Ipswich	Oct. 12	Franklin Park ..	Oct. 5
Yellow Palm Warbler.....	Middlesex Fells	Mar. 30	Natick	Mar. 30
Prairie Warbler	Arboretum	June 8	South Sudbury ..	May 30
Ovenbird	Middlesex Fells	May 12	West Roxbury ..	May 12
Water-Thrush.....	Medford	May 10	Franklin Park ..	May 21
Mourning Warbler.....	Greylock	June 15		
Northern Yellow-throat	Medford	May 17	Franklin Park ..	May 14
Yellow-breasted Chat.....	Newton	June 28	Braintree	June 17
Wilson's Warbler	Middlesex Fells	May 19	Franklin Park ..	May 18
Canadian Warbler	Middlesex Fells	May 23	Jamaica Plain ..	May 26
American Redstart.....	Medford	May 14	Belmont	May 17
American Pipit	Middlesex Fells	April 12	Ipswich	Oct. 19
Catbird	Middlesex Fells	May 15	Franklin Park ..	May 5
Brown Thrasher.....	Middlesex Fells	May 12	Franklin Park ..	May 5
House Wren	Medford	May 5	Belmont	May 17
Winter Wren.....	Greylock	June 15	Franklin Park ..	April 28
Short-billed Marsh Wren....	Norwood	July 4	Wayland	June 15
Long-billed Marsh Wren	Cambridge	June 8	Cambridge	May 24
Brown Creeper	Middlesex Fells	Jan. 3	Waltham	Jan. 5
White-breasted Nuthatch	Middlesex Fells	Jan. 8	Franklin Park ..	Jan. 1
Red-breasted Nuthatch.....	Middlesex Fells	Jan. 6	Arboretum	Jan. 1
Chickadee	Medford	Jan. 3	Franklin Park ..	Jan. 1
Golden-crowned Kinglet....	Middlesex Fells	April 3	Arboretum	Jan. 1
Ruby-crowned Kinglet	Middlesex Fells	April 7	Franklin Park ..	April 27
Wood Thrush	Medford	May 17	Concord	May 18
Wilson's Thrush.....	Middlesex Fells	May 1	Belmont	May 17
Gray-cheeked Thrush.....	Waverly.....	May 25	Franklin Park ..	Sept. 28

Name of Species	List of Birds observed by Lidian E. Bridge, West Med- ford, Mass., from January 1, 1907, to January 1, 1908.		List of Birds observed by James L. Peters, Jamaica Plain, from January 1, 1907, to January 1, 1908.	
	Locality	Date	Locality	Date
Olive-backed Thrush	Waverly.....	May 18	Franklin Park .	May 18
Hermit Thrush.....	Middlesex Fells	April 7	Franklin Park .	April 6
American Robin.....	Medford	Mar. 17	Franklin Park .	Feb. 10
Bluebird.....	Medford	Mar. 18	West Roxbury .	Mar. 16
Ring-necked Pheasant.....	Medford	Feb. 17	Franklin Park .	Jan. 1
Kumlein's Gull.....	Boston	Dec. 7	Boston	Dec. 31
Mockingbird	Medford	Nov. 20	West Medford .	Nov. 21
Brewster's Warbler	Arboretum	June 4	Arboretum	May 26
Hoary Redpoll	Nahant	Mar. 16		
Migrant Shrike.....	Medford	April 14		
Shoveller	Middlesex Fells	Nov. 30		
American Widgeon	Middlesex Fells	Dec. 8		
Philadelphia Vireo .....	.....	.....	Marlboro.....	May 30
Northern Phalarope.....	.....	.....	Wayland	Oct. 5
Iceland Gull.....	.....	.....	Swampscott ..	Dec. 24
Heath Hen .....	.....	.....	West Tisbury .	Nov. 28

Familiar Bird Names

The current discussion in BIRD-LORE ought to bear satisfying fruit for everyday bird-naming. The writer offers a few criticisms as regards the suggestions of both Mr. Dawson and Mr. Perkins (as given in late issues of BIRD-LORE). As for one of the titles in question, one might make a composite, and call the 'Louisiana Water Thrush' henceforth the Southern Water Thrush. Mr. Dawson's 'Western' Tanager is too inclusive; there are other western Tanagers than that so misleadingly called the 'Louisiana' Tanager. How would 'Red-headed Tanager' do?

Now, as to the titles suggested by Mr. Perkins: Can we not let 'Tree' Sparrow alone? The term 'Canadian' adds nothing; and is not distinctively definitive. Let Field Sparrow stand. The name is good; and ought to stand by right of prescription. Why change 'Nashville' Warbler to 'Birch'? The latter title can have but a merely local appropriateness. The other suggestions by Mr. Perkins, in March-April BIRD-LORE, are capital.

As a promoter of discussion, merely, the writer cites a number of possibly helpful changes in our popular bird-nomenclature:

The indigenous Rough-legged Hawks:

Northern and Southern Rough-legs.

Kamchatkan Cuckoo: Siberian Cuckoo.

Arkansas King-bird: Western King-bird.

Restore Acadian Flycatcher.

Eastern Meadowlark (as a matter of pure distinction).

Mexican Cross-bill: Sierra Cross-bill (or, Bendire Cross-bill, or Mountain Cross-bill).

Tree Sparrow: Winter Sparrow.

Arctic Towhee: Spotted Towhee.

Pyrhuloxia: Bull-finch.

Bohemian Waxwing: Greater Waxwing.

Prothonotary Warbler: River Warbler.

Nashville Warbler: Brown-capped Warbler.

Tennessee Warbler: Gray Warbler; (or, Green-gray Warbler).

Blackburnian Warbler: Orange Warbler.

Sycamore Warbler: White-browed Warbler.

Connecticut Warbler: White-eyed Warbler.

MacGillivray Warbler: Tolmie Warbler.

Canadian Warbler: Vested Warbler.

Sprague Pipit: Prairie Pipit.

American Robin: Eastern Robin.

Holboell Grebe: Red-necked Grebe.

Ani: Tick-Bird.

Leucosticte: Rosy Finch.

Junco: (let it *stand*, please, and convert the hyper-sentimentally nick-named 'Snow-flake' into plain, 'Snow-bird.')

Grass-hopper Sparrow: Sibilant Sparrow.

Cinereous Sparrow: Ashy Sparrow.

Hepatic Tanager: Ruddy Tanager.

Verdin: Golden Tit.

Siberian Yellow Wagtail: Alaskan Wagtail.

A number of the above suggestions are in no sense original. They are collated, here, to provoke discussion.—P. B. PEABODY, *Blue Rapids, Kansas*.

Notes from Field and Study

The Skylark, *Pro Tem*

The "Skylark, *pro tem*." So, I named the Bobolink, one day, when my memories were still vivid of the Skylarks I had heard as they were sailing the air and singing above Chorley Woods, a broad, sunny heath not so many miles from old London itself. Yes, without prejudice to either songster, I still adhere to the inspiration of the moment, which recorded this impression of *spiritual* kinship between the English and the American feathered seraph (each aiming at Heaven's gate, in a June-day transport). Each was an embodied lyric. The former contained more stanzas, it is true; but the requisite of "simple, sensuous and passionate" could be applied equally to each of these poets-with-wings. While the rapture and ascent of the sky lasted, my Bobolink could contend, at every point, favorably with the darling of Shelley's adoring muse. Or so, at least, I thought.

My Skylark, *pro tem*, sailed the air, and dropped earthward his astonishing and ecstatic barcarolle. Sometimes he traversed a distinct circle,—a circle which, probably, enclosed the previous spot of earth, where mate and nestlings were basking in the warm June sun. Again, he sailed about the little field, taking a lower range than before—seemingly with a rapturous uncertainty as to where his airy gyrations would "bring up." Sometimes he alighted for an instant on a stone wall, and once, upon the telegraph wire, where he told again all his heart-full of joys; or, rather, it was as though joy told itself through a bird's bill. A memory,—launched on an indignant mental protest came to me just then: "spink,spank,spink!" The wonderful performance to which I was listening, was no more like this syllabic burlesquery in sound, than a Nightingale's song would be attempted to be expressed by any like ridiculous combination of vowels and consonants in a human mouth. Up into the

sky again the little lyrist flew, his voice yielding a pure, harp-like quality, with a flute at intervals miraculously interrupting the harp strain. As he made his ascent, he became, as it were, a whole faint, fine orchestra of delicious bird-music, combining, in delighted confusion, whistling, warbling, trilling, with a tender call-note running through the whole. But he had reached the top of his invisible, lofty Piranesi staircase, and must reel back to earth, somehow. His flight of celestial music had seemed to be too much for him. Having scattered it all, he came fluttering down, and sank for a moment's silent recollection of himself. With loosened wings (I could see the heave of his breast), he lighted and rested on the stone wall near where I watched. And another Bobolink close by, as if to improve the opportunity of such silence, rose to occupy the aerial auditorium, sailing and singing as his brother before him had done.—EDITH M. THOMAS, *New Brighton, S. I.*

Sea Birds as Homing 'Pigeons'

American ornithologists and bird-lovers will probably be surprised to learn that the Frigate Bird (*Fregata aquila*) is frequently employed by the natives of various parts of Polynesia as a carrier "Pigeon."

I have recently called attention to this fact in the Bulletin of the New York Zoölogical Society, and it seems desirable to make it known also to the readers of BIRD-LORE. During the past summer, Prof. John B. Watson made observations on the homing instincts of Terns, and Noddies during their nesting periods.

According to the report of Director A. G. Mayer, of the marine laboratory at the Dry Tortugas, Florida, where Prof. Watson studied the birds, "he demonstrated that if the Sooty Terns and Noddies were taken to Cape Hatteras and liberated, they would return to their nests on Bird

Key, Tortugas, a distance of 850 statute miles."

In the course of a winter's voyage on the U. S. S. "Albatross" in the South Seas, the writer found among the natives of the Low Archipelago many tame Frigate Birds. The latter were observed on horizontal perches near the houses, and were supposed to be merely the pets of the children who fed them.

They were entirely tame, having been reared in captivity from the nest. As our acquaintance with the people developed, we discovered that the birds were used by them after the manner of homing "Pigeons" to carry messages among the islands.

The numerous islands of Low Archipelago extend for more than a thousand miles in a northwest and southeast direction, and it appears that the birds return promptly when liberated from quite distant islands. They are distributed by being put aboard small vessels trading among the islands. The birds are liberated whenever there is news to be carried, returning to their perches sometimes in an hour or less, from islands just below the horizon and out of sight of the home base. Generally they are in no great hurry. As the food of the Frigate Bird may be picked up almost anywhere at sea, there is no means of ascertaining how much time the bird loses in feeding or trying to feed *en route*. It may also linger to enjoy its liberty with other Frigate Birds.

I did not observe tame Frigate Birds elsewhere in Polynesia, but Mr. Louis Becke, who is familiar with most of the South Sea islands, says they were used as letter carriers on the Samoan islands when he was there in 1882, carrying messages between islands sixty to eighty miles apart. When he lived on Nanomaga, one of these islands, he exchanged two tame Frigate Birds with a trader living on Nui-tao, sixty miles distant, for a pair tame reared on that island.

The four birds, at liberty, frequently passed from one island to the other on their own account, all going together on visits to each other's homes, where they were fed by the natives on their old perches.

Mr. Becke's pair usually returned to him within twenty-four to thirty-six hours. He tested the speed of the 'Frigate' by sending one of his birds by vessel to Nui-tao, where it was liberated with a message at half-past four in the afternoon. Before six o'clock of the same day the bird was back on its own perch at Nanomaga, accompanied by two of the Nui-tao birds, which, not being at their perch on that island when it was liberated, it had evidently picked up *en route*. Sixty miles in an hour and a half is probably easy enough for the Frigate Bird, as in Malayo-Polynesia it is said to have frequently returned a distance of sixty miles in one hour.

It becomes entirely tame and familiar when raised from the nest, and if given liberty returns regularly to its home perch at night.

The largest rookery of Frigate Birds I have seen is at Tekokoto, in the Low Archipelago.

Frigate Birds inhabit tropical and sub-tropical seas. The spread of wing is phenomenal for the size of the bird, being about eight feet, giving a wing power perhaps unequalled; although Walt Whitman has somewhat exaggerated its power of flight in the lines:

"Thou who has slept all night upon the storm,
Waking renewed on thy prodigious pinions,
Thou born to match the storm (thou art all wings),
At dusk thou look'st on Senegal, at morn America."

Judging from my South Sea experience, the 'Frigate' goes to roost at night, like many other sea-fowls. — CHARLES H. TOWNSEND, *New York City*.

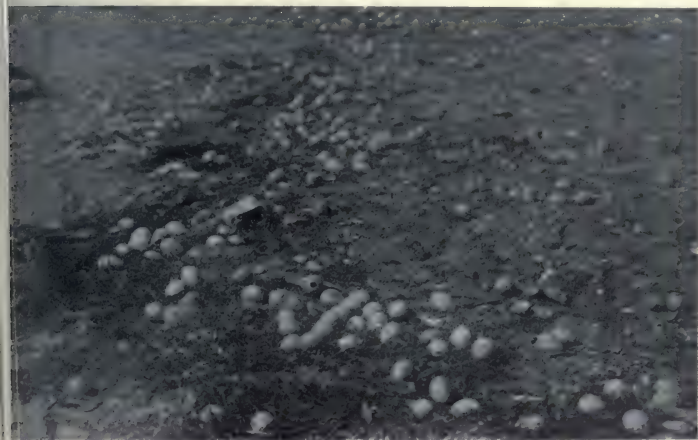
Mortality Among Birds

Any observer who has visited large breeding colonies of birds is aware that there is a heavy death rate among the young birds, and that many eggs also are destroyed by causes over which man has but small control. For example, in Heron

colonies, the young frequently fall from the nests and are either drowned or become entangled in the twigs of the trees or on the edge of the nest and are hung. Crows in many instances destroy large numbers of eggs. In colonies of Terns, the writer has seen young which have become entangled in bunches of sand spurs and died, and still others which have been killed by crabs before they could free themselves of their shells.

Few, however, I suspect are aware of

The wardens of the Audubon Society frequently report similar disasters to the breeding birds. In their annual reports, statements are made showing the number of eggs laid and also the number of young believed to have been raised. While their statements cannot be expected to be absolutely accurate, they are probably not very far wrong, as in some instances at least the figures are based on careful observations and a daily counting of the eggs and young.



SHOWING WINDROW OF ROYAL TERN'S EGGS

The beach on the left has been swept by the waves. On the right are seen young and eggs in the nests which were undisturbed. Photographed by T. Gilbert Pearson

the great loss of life which annually occurs from the destructiveness of storms and high tides. On Royal Shoal island, North Carolina, in June, 1907, a hail storm killed over one hundred and sixty young Laughing Gulls; barely a dozen were left alive on the island. A few days later a high storm tide swept one end of the island, carrying with it into the Sound about 15,000 eggs, mostly of the Royal Tern. On another portion of the island, 1,000 eggs were carried by the water from their nests and left in a great windrow along the beach.

Below are given the combined estimates of the Audubon wardens, showing the number of eggs deposited and the number of young raised by four species in the chief breeding colonies protected on the Atlantic and Gulf coasts, for the season of 1907:

	Eggs	Young
Laughing Gull . . .	59,670	37,300
Herring Gull . . .	71,018	46,600
Black Skimmer . .	28,350	21,050
Common Tern . .	32,300	19,025
Brown Pelican . .	3,500	750

Thus of 194,838 eggs laid, 70,103 were destroyed, chiefly through storms. In

other words, only about 64 per cent of the eggs laid produced young which matured sufficiently to leave the rookeries.

Much of this destruction of bird-life could probably be prevented, especially on the low-lying islands of the southern coasts, by the construction of sea walls, either of stone or low piling, to check the force of the waves and prevent them from running far up the sloping shores. This experiment is now being tried on one of the North Carolina islands.—T. GILBERT PEARSON, *Greensboro, N. C.*

Hummingbird Notes

On June 4, 1907, a female Hummingbird had been seen often around a larch near the house, and on this day the nest was started—a tuft of yellowish down on a twig about fourteen feet from the ground. At 9.30 the next morning, after an hour or more of feeding and playing with her mate around the weigela bushes, she was hard at work again. When it was possible to follow her flight, the particles of down, cobweb, etc., forming the body of the nest, seemed to be collected from among the young leaves of near-by trees, especially the elms; when after the scraps of lichen and moss she was more easily watched, for, darting over to an elm or chestnut, she flew up and down and around the trunk, here and there standing still in the air as she picked off some tiny bit, then back to the larch, alighting directly in the nest. It was most interesting to watch the bird at work; she paid no attention to me, though I stood so near that no opera glass was necessary save when trying to name some piece of building material. Flying directly on to the nest, she would reach over, place her scrap of lichen and give a touch here and there, or if it were down, fix that on the upper edge, pressing and shaping the nest with that tiny body; then in another instant she was off like a winged bullet. She lost but little time during working hours; in one-half hour she made thirty-one trips, the busiest five minutes of that period including ten trips. Usually she brought

down for several trips, then several pieces of lichen to bring the outer covering nearly to the top of the down. Yet several times she returned with nothing visible in her bill, but, after sitting in place a moment, reached over and worked a little with the lichens: is saliva used to aid in fastening these? During afternoon, the bird seemed to do little if any work, though sometimes seen perching near. Throughout, the male showed no interest in the work, and I seldom saw him near the tree.

By the 8th the nest looked complete, but the bird was still adding down to the upper edge and constantly shaping it. June 13, sitting had begun, but—the twig was dead, the wind high, and six days later nest and a broken egg lay under the tree.—ISABEL McC. LEMMON, *Englewood, N. J.*

Nest of Wood Thrush into Which a Cowbird Had Deposited Five Eggs

The nest which is the subject of the accompanying photograph was discovered in the crotch of a leaning box elder sapling, seven or eight feet up. When discovered it contained one egg of the Wood Thrush and one of the Cowbird.

The following day it was found that the Wood Thrush had laid another egg, and that there were three Cowbird's eggs instead of one there, which proved to me that there were at least two Cowbirds using the nest instead of one, for two Cowbird's eggs had been deposited in less than twenty-four hours.

I removed the Cowbird's eggs after photographing the nest. This was done on June 5. On the 13th another Cowbird's egg was found in the nest, but there had been no change in the number of the Thrush's eggs.

On the 20th the nest was again visited and one young Thrush was found, apparently two days old, but no traces of the other two eggs were seen. On the 25th the nest was again visited and another Cowbird's egg was removed. On July 1, both mother and nestling left the nest permanently.

In all probability, if the Cowbird's eggs—

five in all—had not been removed, the Wood Thrush would not have been able to hatch a single nestling, and, if she had, the lusty young Cowbirds would have smothered or crowded it out of its rightful home.—GEO. P. PERRY, *Sterling, Ill.*

Albino Flickers

These Flicker photographs were taken June 15, 1907, in the southwestern part of Ohio, near New Paris. The nest was

the nape. The shafts of the tail feathers were yellow, as in the normal, and the eyes were pink, as is usual with albinos. The white birds were fully as large as the others, and quite as lively.

One week after the photographs were made, all the birds had left the nest, but one of the albinos was found on a small tree nearby. It was secured, and is now in the collection of the Biological Department of Earlham College, at Richmond, Indiana.



NEST OF WOOD THRUSH WITH THREE COWBIRDS' EGGS

Photographed by George P. Perry

discovered about May 30, by Miss Ruth Petry, at which time the birds had been hatched some days. The nest was in a large basswood fence-post, with the opening only two feet from the ground. The nestlings were six in number, but only two of them showed any departure from the normal.

These two were creamy white in color, with the exception of the red crescent on

The other bird remained in the neighborhood of the nest for about a month. From its behavior in flight, especially its tendency to circle about, it seemed probable that the light blinded it more or less. After some weeks, nothing more was seen of it. It is likely that it paid the penalty of uniqueness, and fell a victim to some predatory Hawk.—LOREN C. PETRY. *Haverford, Penna.*



TWO ALBINO AND ONE NORMAL FLICKER FROM THE SAME NEST
Photographed by Loren C. Petry

Identification Sketches

I wonder if any of your readers has ever tried the following method of taking notes on birds. I pass it on in the hope that it may, perhaps, help some ambitious beginner, especially in the task of bringing order out of the delightful chaos of his first Wood Warbler observations.

On a dozen slips of paper sketch the rough outline of a bird. With these slips in your note-book, and a box of colored crayons in your pocket, seek a favorable spot, sit down and wait. Then, when the Warbler flock begins to gather about, take notes by filling in your outline sketches. For example, if a Chestnut-sided Warbler appears, you can, with a bit of black crayon, record in half a second the peculiar V-shaped mark on the face that would have taken a number of seconds to describe in writing. And after your next glimpse of him, a blur of yellow on his head, a smear of chestnut along his side—and lo! already you have a sketch that may not be an artistic triumph, but which will surely serve later to identify your bird. Not alone in the recording of obser-

ventions is time saved by this method. Often it is necessary to refer hastily to some one of your incomplete records. It would take some time to read and form written words from the mental image required; whereas it takes but a glance at the crayon sketch. And when there are Warblers about one, appearing and disappearing and reappearing, elusive as fairy-folk, among the leaves, who does not grudge every second's attention that so prosaic a thing as a note-book demands? —MARIAN WARNER WILDMAN.

A Prothonotary Warbler in Central Park

While sitting by one of the inlets of the lake in Central Park on May 8, 1908, I was attracted by an unfamiliar song which awakened my curiosity and put me on the alert to watch for the singer. Very soon I saw what looked like a little gold ball flying toward me from the opposite bank, and lighting in a bush not four feet from me, it poured forth the song I so wanted to hear. I looked, and looked, and my heart gave a bound when I thought of a skin of a Prothonotary Warbler I had cherished

for years, every feather of which I knew. "It is without doubt the bird," I exclaimed, "but how did it get so far away from its range?" I remained some time watching it fly back and forth, then went to the American Museum and reported it, and examined specimens to make sure I was right. So far as I know it has never been seen in the park before.

On May 5, Mr. Chubb and Dr. Wiegman both saw this bird.—ANNE A. CROLIUS, *New York City*.

Tufted Titmouse in Central Park

A Tufted Titmouse spent nearly two weeks in May of this year in Central Park. It was not shy but, on the contrary, rather enjoyed getting near and surprising you by a loud whistle continuing five minutes or more. I think this is the only record of this species for Central Park.—ANNE A. CROLIUS, *New York City*.

Briars as Nest Protectors

I have heard of a way of preventing cats from climbing trees for birds that was new to me, and possibly may prove of value. Take stalks of rose-bushes, or others with briars—dead ones will do. Tie them together strongly and put them round the trunks of trees too high up, of course, for a cat to jump above it. It is said that a cat will not cross them.—M. A. AYERS, *Fitzwilliam, N. H.*

The Prairie Horned Lark in Fairfield County, Connecticut.

On March 25, I heard of a nest containing four eggs which had been found in Great Plain district, Danbury, by Miss XeSands, a bright school-girl of fourteen years, who is very much interested in birds. I visited the nest on the next afternoon and was very much surprised to find it a nest of the Prairie Horned Lark.

The nest, a neat and well-made structure of fine, soft dead grass, was placed in a hollow, caused by the removal of a small stone, on the gravelly western slope

of a large round-topped sandhill. To the northwest from the foot of the hill stretches a small valley with an old cornfield and pasture lot. No houses can be seen from the immediate vicinity of the nest, although there are several just over the surrounding hills.

On the morning of March 27, Mr. H. C. Judd, of Bethel, and Mr. Jesse C. A. Meeker, of Danbury, went with me to the nest in order to establish the identity of the birds beyond all possible doubt, but were very much disappointed to find that



NEST OF PRAIRIE HORNED LARK

Photographed by Robert S. Judd

three of the eggs had hatched during the night.

I was unable to visit the nest again until April 6, and was very fortunate to find one of the young still at home, although he was perfectly able and willing to leave. In fact, after I first took him from the nest, he would make a break for liberty as fast as his legs could carry him every time I put him down. Once I let him run just to see what would happen. He went about a rod, then crouching close to the ground remained perfectly still until I put my hand over him, seeming to have great faith in his protective coloration. It was indeed remarkable how well the grayish

brown-tipped black feathers of his back matched the general tone of the sidehill.

The old birds were somewhat shy, never coming nearer than thirty or forty feet, excepting once when the young one called while I was holding him; then the female lit for a moment on the ground within a few feet and showed all the signs of motherly anxiety which a bird can. At other times she was flying back and forth at some distance with a peculiar jerky flight, seeming to punctuate each wingbeat with a sharp whistled note, only occasionally alighting on the ground, or on a fence post for a few seconds. The male kept himself for the most part in the background.

Just before leaving I placed the young one in the nest and started to look over the sidehill, in the hope of finding another of the family. In the meantime the female lit on the top of the hill and commenced to whistle. When I returned to the nest it was empty, nor could I find the young one after searching thoroughly. She had evidently whistled to very good purpose.

The whole family had disappeared completely, leaving only a trampled nest to show where these hardy little birds had reared their young in spite of the cold, blustering March weather.—ROBERT S. JUDD, *Bethel, Conn.*

What the Starling Does at Home

In view of the reports concerning the habits of the Starling which have appeared in recent numbers of BIRD-LORE, the notes given below, which show what the bird does when at home, may be of interest. These notes are from an article entitled: "Birds in Relation to the Farm, the Orchard, the Garden, and the Forest," which is to be found in the August (1907) number of the "Agricultural Students' Gazette," a periodical published at Cirencester, England.

"The Starling is a splendid bird on grass land, foraging for leather jackets (larvæ of crane flies), wire-worms, etc., rids the sheep of a few of their ticks, but in a fruit district it comes in droves into the strawberries and attacks the cherries

wholesale (Hereford); peas, apples, plums, as well as cherries (Kent), also raspberries. Very valuable insect-destroyers, but getting too numerous (Nott). In my fruit-fields (between Marden and Colchester), I do not suffer very much from Blackbirds and Thrushes, nor do I grudge them their toll in return for their song. Only one bird is dangerous to my crops—that is the Starling. He threatened the utter destruction of our strawberry, raspberry, cherry, gooseberry, and currant, and some other crops. These birds are said to come to us from the marshes as soon as the young are hatched. And they come in millions; in flocks that darken the sky. Their flight is like the roar of the sea, or like the train going over the arches. Their number increases rapidly each year. I can look back to the time when there were few, and have watched their increase for forty years, till now it is intolerable (Essex). The Starling is a terror, and life around here is hardly worth living; you must have a gun always in your hand, or woe betide the cherries—they come in thousands. (Sittingbourne, Kent)."

Such reports—though doubtless exaggerated somewhat—coming from different localities, and from the people who have suffered loss, are certainly suggestive of what may happen in this country, as the Starling increases in numbers. For more than twenty years after their introduction, English Sparrows had many staunch defenders.—S. H. GOODWIN, *Provo, Utah.*

A Southern Starling Record

A pair of Starlings have wintered at 47th and Baltimore Avenue, West Philadelphia, and I am told they nested at 46th and Baltimore, on the Twaddell estate last summer.—THOMAS R. HILL, *Phila.*

Information Wanted

The undersigned desires to make studies of the home-life of the Hummingbird and Chickadee, and would be grateful for information in regard to the whereabouts of nests of these species situated within fifty miles of New York City.—F. M. CHAPMAN, *Englewood, N. J.*

Book News and Reviews

THE BIRD OUR BROTHER; A CONTRIBUTION TO THE STUDY OF THE BIRD AS HE IS IN LIFE. By OLIVE THORNE MILLER. Houghton, Mifflin & Co. 1908. 12mo. ix + 331 pages.

This is a very readable volume. There is not a word of padding, but from her own extended experience with birds and bird literature, Mrs. Miller has drawn only such material as is pertinent to her chapters on the individuality, intelligence, language, education, affections, courtship, amusements and usefulness of birds. The authority and place of publication for all quotations are given in an appendix of 285 references, a feature which in itself makes the book of much value.

With much of what Mrs. Miller says of the bird's individuality and mental equipment we are in accord, but Mrs. Miller, we fear, loves birds too well to be an altogether impartial judge of their real place in nature, by which we mean their degree of mental development and their relations to other forms of life. She presents, therefore, only such facts as tend to confirm her point of view, ignoring those which show that birds have the faults as well as the virtues of man. Her subtitle, consequently, should read "A Contribution to the Study of the Bird as I Believe Him to Be in Life," and with this modification the book may be accepted as a fair presentation of Mrs. Miller's side of the case.

Mrs. Miller's definition of a bird student is so admirable that we quote it in full: "When I speak of bird-students or of observers, I do not mean the stroller who who passes leisurely through fields and woods, pausing now and then to notice a bird more or less casually, while the bird on his part is perfectly aware of the scrutiny, and fully on guard. . . . By a bird student, or an observer, I mean one who gives hours and days and weeks and months to the closest observation of one bird or one species, watching to see how he lives and moves and has his being. . . ."—F. M. C.

THE POLICEMEN OF THE AIR; AN ACCOUNT OF THE BIOLOGICAL SURVEY OF THE DEPARTMENT OF AGRICULTURE. By HENRY WETHERBEE HENSHAW. NATIONAL GEOGRAPHIC MAGAZINE. XIX. 1908. pp. 79-118, numerous illustrations.

We have here an authoritative statement of the work of the Biological Survey by its Administrative Assistant presented as an attractively written essay on Economic Ornithology and Mammalogy, Faunal Geography, Game Protection, Bird Reservations and Wild Animal Refuges. In summing up the value of birds to agriculture Mr. Henshaw remarks: "What would happen were birds exterminated no one can foretell with absolute certainty, but it is more than likely—nay, it is almost certain—that within a limited time not only would successful agriculture become impossible, but the destruction of the greater part of vegetation would follow." This paper cannot have too wide a circulation and to any one desirous of materially aiding the cause of bird protection we suggest the donation of half a million copies of it to the National Association of Audubon Societies for free distribution.—F. M. C.

CATALOGUE OF A COLLECTION OF BOOKS ON ORNITHOLOGY IN THE LIBRARY OF FREDERIC GALLATIN, JR. New York. Privately printed, 1908. 8vo. 178 pages, 3 photogravures.

Ornithological bibliographers who pursue 'first' or 'limited' editions as keenly as one would a rare bird, will be interested in this record of 'specimens,' so to speak, in the collection of Mr. Frederic Gallatin, Jr. It contains the complete works of Audubon and Wilson, and the larger works of Dresser, Elliot, Gould and others, as well as many less elaborate but more useful publications. Such, for example, as the British Museum Catalogue of Birds. There are also complete sets of 'The Ibis' and 'The Auk,' in short, the library is one of the notable collection of bird books in this country.—F. M. C.

FOOD HABITS OF GROSBEAKS. By W. L. MCATEE, Assistant Biological Survey, Bulletin No 32; Bureau of Biological Survey, United States Department of Agriculture, Washington, 1908. 8vo. 92 pages, 4 plates, 3 colored, 40 text figures.

The methods by which the vast amounts of data given in this paper were acquired, the manner in which they are arranged, and the judgment shown in their form of presentation and illustration from the book-makers point of view, are above criticism. We have space here only for Mr. McAtee's conclusion: "The five Grosbeaks studied consume, on the average, nine times more weed seed than grain and fruit. Moreover, they devour nineteen times more injurious than useful insects. Consequently, since their subsistence is about half animal and half vegetable, their food habits are about fourteen times more beneficial than injurious."—F. M. C.

The Ornithological Magazines

THE AUK.—The April number of 'The Auk' opens with a paper by Mr. C. C. Adams on 'The Ecological Succession of Birds.' It is a philosophical treatise of considerably more volume than substance, for old ideas concerning the struggle for existence are here so tricked out in the modern finery of biological language that they fairly dazzle the eye and bewilder the brain. We can agree with the writer that "environmental evolution and biotic succession are of great value," but we confess to a feeling of doubt when he tells us "It is quite probable that one of the main conditions which prevents a more rapid advance along evolutionary lines is in a large measure due to the almost utter failure to analyze dynamically environmental complexes!"

Mr. Wm. L. Dawson has a paper on the 'Bird Colonies of the Olympiades,' rocky islets off the coast of Washington which are now set apart as bird preserves with an estimated population of 100,000; Messrs. Beyer, Allison and Kopman continue their list of the birds of Louisiana; Mr. H. G. Smith has extensive notes on the

birds of Colorado; and Mr. E. Seymour Woodruff presents 'A Preliminary List of the Birds of Shannon and Carter counties, Missouri' with accompanying map. Mr. Woodruff is to be congratulated on so concise an account of the fauna of a rather inaccessible part of the state. We only regret seeing new scientific names for some of our common birds for we believe in the temporary stability attained by sticking to old names until the American Ornithologists' Union's Nomenclature Committee sanctions new ones.

More Auduboniana is furnished by Mr. R. Deane who has already been the source of much valuable historical material gleaned from old letters and documents. He also contributes an account of 'The Passenger Pigeon (*Ectopistas migratorius*) in Confinement,' which is a fitting obituary notice of the last survivors of a bird that in Audubon's time, and much later, darkened the sky in countless multitudes. The passing of the Pigeon is unique, so far as we know, in the annals of ornithology, although other birds have met or will meet its deplorable fate.

The general notes show active field work on the part of a large number of careful observers and the reviews show ornithological activity the world over.—J. D., Jr.

THE CONDOR.—Volume X of 'The Condor,' which began in January, contains 56 pages in its initial number (practically a double number) replete with interesting articles and notes. Among the papers most likely to attract the attention of the general reader are Finley's 'Life History of the California Condor,' Part II, containing the most complete resumé of the history and range of the bird thus far published, and Dawson's description of 'The New Reserves on the Washington Coast,' Three groups of rocky islands between Cape Flattery and Copalis Rock were set aside as bird refuges by executive orders on Oct. 23, 1907 (See BIRD-LORE, IX, pp. 292-294, 1907). For these islands, designated as the Flattery Rocks, Quillayute Needles, and Copalis Rock reserva-

tions, Dr. Dawson proposes the collective term Olympiades from their proximity to the Olympic Mountains. Here are the nesting grounds of twelve species of seabirds comprising, according to an estimate made in June 1907, some 60,000 Gulls, Cormorants, Puffins, Auklets and Murres, and 100,000 Kaeding Petrels.

Under the title 'Northwestern Colorado Bird Notes,' Warren gives a list of ninety-three species of birds observed during the spring and summer of 1907; and in 'Notes from the Diary of a Naturalist in Northern California,' Ferry mentions about one hundred species observed while engaged in work for the Biological Survey, in 1905, at various points chiefly in Mendocino, Trinity, Siskiyou, Del Norte, and Humboldt counties. The nesting habits of the Western Horned Owl in Colorado are described by Rockwell and those of the Tawny Creeper in Washington by Bowles.

Dr. D'Evelyn contributes a popular account of the principal 'Locust-destroying Birds of the Transvaal'; Grinnell describes 'The Southern California Chickadee' from Mt. Wilson as a new subspecies (*Parus gambeli baileyæ*); and Willard in 'An Arizona Nest Census' gives a striking illustration of the manner in which birds sometimes breed in close proximity. At Tombstone, Ariz., in a space only 120 x 150 feet twenty-eight pairs of birds, representing ten distinct species, nested and reared one or more broods of young.—T. S. P.

Book News

Nearly every issue of 'Country Life in America' contains one or more illustrated articles on birds, but the lesson of the much-discussed 'fake' Grouse pictures, which appeared in that magazine some years ago, appears not to have born fruit, and on page 112 of the May number there are some notable examples of stuffed-bird photography. Here also we find a Yellow-billed Cuckoo labelled "Seaside Finch!"

In 'Some Records of Fall Migration of 1906' (Ninth Annual Report Michigan Academy Science, pp. 166-171) Mr. Norman A. Wood gives a synopsis of daily

observations made at Portage Lake, Washenaw county, Michigan, from September 9 to October 21.

The birds of probably no portion of South America are better known than those of the island of Trinidad, but in spite of the long-continued work of collectors in this comparatively restricted area, Mr. George K. Cherrie (Vol. I, No. 13, Science Bulletin Museum Brooklyn Institute Arts and Science), adds four species to the list of Trinidad birds as a result of field work there during March, 1907. Of these, however, two were previously known from Monos island, adjoining northwest Trinidad, while *Chaturcinereicauda*, given by Cherrie as a first record for Trinidad, had already been recorded as "Common" at Caparo in the central part of the island by Chapman (Bulletin American Museum Natural History, vii, 1895, 324), on whose specimens Hellmayr (Bull. Brit. Orn. Club, XIX, 1907, 62) has since based his *Chaturcinereicauda chapmani*.

The name of Denis Gale appears so frequently in Bendire's 'Life Histories of North American Birds' that bird students will read with interest an account of the work of this "early Colorado naturalist" published by Junius Henderson in the 'University of Colorado Studies' (Vol. V, No. 1, Dec. 1907).

In the 'Museum News' of the Brooklyn Institute (Vol. 3, No. 7, April 1908) George K. Cherrie makes an important addition to our knowledge of the habits of the Giant Stork or Jabiru based on his study of this bird in Venezuela, where he tells us the bird's wings and tail feathers are in demand "as ornaments for ladies' hats."

The 'Nature-Study Review' for April (pp. 133-137) contains an article by C. F. Hodge entitled 'Nature-Study and the Preservation of American Game Birds' in which the author offers to coöperate in the artificial propagation of the Wild Turkey, Bob-White, Ruffed Grouse, Passenger Pigeon, and Prairie Hen. Professor Hodge's address is Clark University, Worcester, Mass.

Bird-Lore

A Bi-monthly Magazine

Devoted to the Study and Protection of Birds
OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Edited by FRANK M. CHAPMAN

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Bird-Lore's Motto:

A Bird in the Bush is Worth Two in the Hand

WE have before referred to the studies of Noddies and Sooty Terns by Prof. John B. Watson on Bird Key, Tortuags, during the nesting season of 1908, and in the annual report of Dr. Alfred G. Mayer, Director of the Department of Marine Biology of the Carnegie Institution, under the auspices of which Professor Watson's researches were made, there appears a preliminary report of this work. The final report will appear during the year, and we will call attention here, therefore, only to Professor Watson's supremely interesting tests of the homing instincts of Noddies and Sooty Terns. Fifteen marked birds were taken from the Key and released at distances varying from about 20 to 850 statute miles, thirteen of them returning to the Key. Among these thirteen were several birds which were taken by steamer as far north as Cape Hatteras before being freed.

This experiment is by far the most important in its bearing on bird migration of any with which we are familiar. It was made under ideal conditions. Neither the Noddy nor Sooty Tern range, as a rule, north of the Florida Keys. There is no probability, therefore, that the individuals released had ever been over the route before, and, for the same reason, they could not have availed themselves of the experience or example of migrating individuals of their own species; nor, since the birds were doubtless released in June

or July, was there any marked southward movement in the line of which they might follow. Even had there been such a movement, it is not probable that it would have taken the birds southwest to the Florida Keys, and thence west to the Tortugas. This marked change in direction, occasioned by the water course, which the birds' feeding habits forced them to take, removes the direction of the wind as a guiding agency, while the absence of landmarks over the greater portion of the journey, makes it improbable that sight was of service in finding the way. Professor Watson presents, as yet, no conclusions, but, while awaiting with interest his final report, we cannot but feel that his experiments with these birds constitute the strongest argument for the existence of a sense of direction as yet derived from the study of birds. With this established, the so-called mystery of migration becomes no more a mystery than any other instinctive functional activity.

'The Guide to Nature Study,' Mr. E. F. Bigelow, presents an editorial in which we quote at length: "The most difficult task that has thus far come to me in the establishing of 'The Guide to Nature' has been the returning of manuscripts, as I have had to do, even to some of the magazine's best friends. The announcement that this is to be a magazine of helpfulness, to inspire and increase an interest in nature, has brought forth an immense number of essays on what, for lack of a better term, I must call 'glittering generalities' about the beauty and suggestiveness of nature. This is to be a magazine not of preaching on 'The Beauty and Interest to be Observed in Insects,' 'The Fascinations of Ornithology,' 'Wonders of the Plant World,' or similar general essays; but each article is to have a specific statement of what has been actually seen or done, not what the author's point of view may be. . . ." If Mr. Bigelow can produce a magazine which will meet this standard (and he makes an excellent showing in his first two numbers), he will benefit his contributors as well as his readers.

The Audubon Societies

SCHOOL DEPARTMENT

Edited by MABEL OSGOOD WRIGHT

Address all communications to the Editor of the School Department, National Association of Audubon Societies, 141 Broadway, New York City

Bird Houses and School Children

OUR Northwest field agent, Mr. Finley, writes: "We have a great deal of interest in bird study worked up in various schools about the state. Wherever there is a manual training department, they are making many bird-houses. Superintendent Alderman at Eugene writes that they are making Eugene a bird city. The school children are arranging for a bird day a little



MANUAL TRAINING CLASS AT WORK ON BIRD HOUSES, PORTLAND, OREGON PUBLIC SCHOOLS. Photograph by H. T. Bohlman

later and they have bird-houses up in every tree and back yard in the town. At the recent annual exhibit of school work, they had 443 bird-houses on display. We have an exhibition of bird-houses now in Portland that were made by the children of the manual training department here. It is attracting much attention.

"We are doing considerable bird work in the schools by getting the children to make observations in the field and write compositions on the various phases



BIRD-HOUSES—SCHOOLBOY AT WORK

Photograph by H. T. Bohlman

of bird life. Two contests for prizes are being carried on now in this county and Yamhill County for the best written accounts of the observations made."

Good Work in a Pennsylvania School

THE annual public meeting of the Audubon Society of the Darlington Seminary was held Saturday evening. Mrs. Bye opened the program with an account of the objects of this Society, and read a letter received from Wm. Dutcher, President of the National Association, New York, acknowledging the receipt of the fee, which entitles the school to sustaining membership, also \$5 for a subscription to BIRD-LORE, a delightful work on ornithology. Mrs. Ball read an instructive paper on 'The Background of Ornithology.'

Mrs. Bye then made an earnest appeal to every woman especially to con-

sider this subject and realize the destruction of bird life that their love for finery occasions. Every year large numbers of birds are killed to supply milliners.

The hall was appropriately decorated with greens and great quantities of violets. Birds were in evidence everywhere, a number having been painted by the art students. The birds were sold by auction at the close of the meeting, which caused much merriment and netted a neat little sum for the benefit of the Society, which will swell the annual contribution that the Seminary branch makes annually to the National Association.

American Nature-Study Society

The American Nature-Study Society was organized at Chicago, Jan. 2, 1908, for the advancement of all studies of nature in elementary schools. The Council for 1908 consists of: *President*, L. H. Bailey (N. Y.); *Vice-Presidents*, C. F. Hodge (Mass.), F. L. Stevens (N. C.), V. L. Kellogg (Cal.), W. Lochhead (Canada), F. L. Charles (Ill.); *Directors*, D. J. Crosby (D. C.), C. R. Mann (Ill.), S. Coulter (Ind.), H. W. Fairbanks (Cal.), M. F. Guyer (O.), O. W. Caldwell (Ill.), G. H. Trafton (N. J.), F. L. Clements (Minn.), Ruth Marshall (Neb.), C. R. Downing (Mich.); *Secretary*, M. A. Bigelow (N. Y.). The Council will publish *The Nature-Study Review* as the official organ, and send it free to members whose annual dues (\$1.00) are paid in advance. Teachers and others interested in any phase of studies of nature in schools, are invited to send applications for membership; simply write, (1) name, (2) official position or occupation (for directory to be printed), (3) permanent address; and mail to Secretary, American Nature-Study Society, Teachers College, New York. For full information see the official journal for January, 1908.

A Course In Bird Study

The Cold Spring, Long Island, Biological Laboratory of the Brooklyn Institute of Arts and Sciences announces a course in bird study by Mrs. Alice L. Walter, which will treat of classification, with particular reference to the birds of eastern North America; ancestry; anatomy; adaptation of structure to environment; plumage and moults; nesting habits, geographical distribution; migration; economic value and bird protection; methods of study in the field, garden or restricted areas, together with practical suggestions for bird study in schools.



THE BARN SWALLOW

By MABEL OSGOOD WRIGHT

The National Association of Audubon Societies

EDUCATIONAL LEAFLET NO. 32

Once upon a time, all country children knew a Barn Swallow as well as they knew the chickens they fed or the cattle they drove to pasture; while, if they could only call a half dozen birds by name, this Swallow was sure to be one of them.

Now, one may live in a small town, on the outskirts of a village, or even in the real open farming country, without having the Barn Swallow as a neighbor, and only know it as it perches on the telegraph wires by the roadside, or flies in great flocks, in company with others of its tribe, to its roosts in marsh meadows in the fall migration.

Why should this be when the Barn Swallow is not widely distributed over our continent, but, being a bird of the air and feeding upon the wing, it runs fewer risks in getting its living than do the birds of the trees or ground?

You cannot tell, doubtless, and yet you may also have noticed their scarcity; so let us spend a few minutes with the bird itself, as well as the conditions that surround it.

The Barn Swallow belongs to the family of Hirundinidae. **His Family** (equivalent of Swallow). There are over eighty species of these birds, quite generally distributed throughout the world, while nine are to be found at some time of the year within the borders of the United States. The Purple Martin, of the glistening purple-black coat, is the largest of our Swallows, being a trifle larger than either Wood Thrush or Catbird, while the dust-colored Bank Swallow, whose coat blends well with the bank of clay or loam in which he burrows his nest tunnel, is the smallest, being less in size than our Chipping Sparrow.

Though there is considerable variety in the plumage of these Swallows all but the Bank Swallow show more or less metallic luster in the feathers of the back, all have pleasing mellow voices that are heard in the simplest sort of a song, which (if we except the Martin's rather plaintive notes) sound more like rippling bird laughter than an attempt at singing. In addition, they are all strong and swift of wing and weak of feet; going to prove, as one of the Wise Men puts it, that their wings have been developed at the expense of their claws, and for this reason when they are forced to perch they must choose some very slender perch, such as the telegraph wires.

In a family noted for its beauty and grace, our Barn Swallow is well able to hold his own; and his chief mark of identity, the deeply forked, white-spotted tail, tells his name, whether on the wing or at rest, so that there should be no difficulty in naming him. Then, again, as seen in the accompanying picture,

BY



BARN SWALLOW

Order—PASSERES
Genus—HIRUNDO

Family—HIRUNDINIDÆ
Species—ERYTHROGASTRA

they are always upon the wing, now following some insect high in air, now skimming low over the meadows, with a motion peculiar to themselves,—a flight that resembles swimming or rowing in the air—so swiftly does the rudder-like tail keep the balance in the rapid gyrations of the body propelled by the long oar-like wings.

His Home and Country

The Barn Swallow is found not only in all parts of North America, but in Alaska and Greenland as well, and it breeds in the greater part of its range *where suitable sites* are to be found. Now, this question of nesting-sites is of great importance when we are trying to account for, at least, a local decrease in the number of these birds, and for the cause and its remedy. What is necessary in order to make this Swallow feel at home?

We associate him with the comfortable old-fashioned barns, with open rafters, doors that could not be tightly shut, and windows with many panes lacking. Here the birds nested, either in single pairs or more often in colonies, fastening their cup-shaped clay nests, made of mud balls well reinforced with straw, after the fashion of human brick-makers, to the side of the hay-loft timbers or other convenient places. This nest is usually so well lined with the various feathers picked up in the barnyard below that before use has worn it down it looks very much like some sort of furry cap turned inside out.

Now-a-days, the new farming demands that barns and other outbuildings should be tight and neat with paint, instead of covered with mossed and weathered shingles; so that, as the new replaces the old in their haunts, many a pair of Swallows drop from their sky-high wooing to find closed doors and tight roofs staring them in the face. So they move on,—Where? that is the question,—for there is no reason to suppose that there has been a greater mortality among these birds during the last ten years than in the decade that preceded it. That Barn Swallows existed before there were barns, goes without saying; consequently, if this were all, a return to a barnless condition should only be a matter of time. Caves are known to be used to a limited extent; but may it not be possible that in settled places the Barn Swallow may become even further domesticated, form the habit of coming under the roofs of the porches and piazzas of those who are not too particular about a little mud and litter, as does the Phœbe, who was originally a cliff-dweller? I have heard of several individual cases of this kind, and it would be very helpful if the readers of this leaflet would be on the lookout this summer for any unusual nesting-places of this bird, and make a report of them.

As the Barn Swallow covers a wide summer range, so does it travel far in the migrations, wintering as far south as Brazil; and, as it takes first rank among a family of birds famous for their power of flight, so is also this flight and the preparation for it a matter of great interest.

In the middle states, the Barn Swallow appears after the first week in April,—a time when the flying insects, upon which it feeds, may be expected to be plenti-

ful. Its first appearance, as well as its last in autumn, is usually in the vicinity of water, and before pairing, the nightly roost of the birds is in the low bushes of some marshy meadow. Two broods are reared in a season, the first nest being built in early May and the second in June, and on two occasions we have had a third nest in our barn in the middle of August.

The sets of eggs vary from four to half a dozen; the ground color is white, and they are thickly spotted with various shades of brown. The young birds at first are dull and brownish looking, much like Bank Swallows, and even the forked tail is not well developed in the very young.

During the nesting season the food flight of the Barn Swallow is incessant, and, as the birds are of a sociable nature, they often go out in groups when in search of food, their happy twittering song when on the wing being one of the sounds we should miss sadly. In addition to killing myriads of mosquitos and their kin, flies are taken, small beetles and several species of winged ants.

Every one who, on a cloudy day or late in the afternoon, has stood by a millpond or other large body of forest water, must have noticed these Swallows skimming low over the water, taking the gnats that swarm there, upon wings that never tire. It was often the habit of boys, idle and worse, to throw sticks and other missiles at these low-flying birds, to see how many they could kill,—this game being played in the nesting as well as the flocking season. This sort of thing is, of course, mere wanton cruelty, as there can be no pretence of eating the birds. Be the cause what it may, this Swallow is decreasing rapidly here in southern Connecticut, and one day this spring, in a drive of twenty miles through the real farming country where there was a fair proportion of old-fashioned weathered barns, I saw only three small colonies of the birds.

Barn Swallows were also one of the first 'Bonnet Martyrs' among our familiar birds that attracted the attention of bird lovers, more than twenty-five years ago, to the necessity of bird protection. The breast and wings of these beautiful birds were used to such an extent for millinery that an editorial appeared in 'Forest and Stream' entitled 'Spare the Swallows.' This agitation resulted in the organization of the first Audubon Society, in 1886.

In the latter part of August, the family groups break up and the general flocking begins. From this time on until their final disappearance, the Barn Swallow and his brothers, the Bank and the Tree Swallow, lend life and beauty to the autumn landscape, whether they perch upon wayside wires, pluming themselves, or whether they flock and wheel over sand dunes and meadows, as if preparing for the flight of migration, which, according to my own observation, begins, at least, by daylight.

The season of the Barn Swallows' disappearance varies doubtless according to season and locality. Mr. Chapman gives October 1-10 for its time of leaving the vicinity of New York. Here in southern Connecticut we have a good sprink-

ling of them until the third week of October, both as individual and as parts of the mixed flocks in which the Swallow family travels. Everything concerning the life of a Barn Swallow is simple, innocent and suggestive of the dawn of things, before wild nature had learned to be wily to protect itself against the wiles of man, yet this Swallow is quick of wit as of wing, where the care of its young is concerned, and I well remember the expedient resorted to by a pair of Swallows who could not coax their belated nestlings to leave, on a rafter in our hay-loft.

The brood was ready to fly one warm day in the early part of August, or the parents at least thought so, but the nestlings were perfectly content where they were; the table was good and the view unexceptional. Coaxing did not avail, so the next day the parents pushed them out on the hay, and there they stayed for two days more. But they either could not or would not fly.

The third day, the parents refused to come further in than the window-sill, where they uttered a lisping chirp, fluttered their wings and held out insects temptingly. In this way the young were lured up, and finally spent the night on the sill, cuddled together.

Next morning the youngsters were coaxed to the limbs of a hemlock, the nearest tree to the window, but one that offered perilous perching for their weak feet. Two of the four went in the green of the most steady branches, but two grasped twigs and swung overhead downward, having no strength of grip with which to retain an upright position. Under one bird were tiers of soft green branches, under the other, a stone wall.

The old birds gave a few sibilant twitters and darted almost invisibly high. In a few moments the sky was alive with Swallows, who fluttered about the bird who was suspended above the wall. To and fro they wheeled, keeping always above the little one, as if to attract its attention. The parents stayed nearer, one with a small moth in its beak, and seemed to urge an effort to secure it. Still above the wall the little bird hung motionless, except that its head was slowly drooping backward more and more, and the circling birds became more vociferous. Suddenly the parent who held the butterfly lit on the branch at the spot where the bird was clinging, while its mate darted swiftly close beneath. Whether the darting bird really pushed the little one up, or only made the rush to startle it to sudden action, I could not discover, but in a flash the deed was accomplished and the bird righted. The visiting Swallows wheeled and lisped for a minute, and then were engulfed by the sky, as mist in the air blends with the sun-light.

Questions for Teachers and Students

What is the range of the Barn Swallow? Is it common in your vicinity? Is it increasing or decreasing? What are the causes of increase or decrease? How many species of Swallows are there in the world? In North America? Where does the Barn Swallow winter? When does he come in the spring? How late does he remain in the fall? Describe a Barn Swallow's nest. How is the mud gathered and carried? What does the Barn Swallow feed upon? Is it injurious or beneficial?

The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by WILLIAM DUTCHER

Address all correspondence, and send all remittances for dues and contributions, to the National Association of Audubon Societies, 141 Broadway, New York City

TWO NEW BIRD RESERVATIONS

The Tortugas Reservation

Since the year the Thayer fund was established, special protection has been given to the large bird colony on Bird Key in the Tortugas, with the result that, from a very small colony of Sooty and Noddy Terns, this island now supports very large numbers of these interesting birds, as shown by the report of Prof. John B. Watson, published in December (1907) *BIRD-LORE*. Recently, application was made to President Roosevelt to have the entire Tortugas group set aside as a bird reservation, and, with his usual willingness to help this Association in its bird protection, he issued the following:

Executive Order

It is hereby ordered that all islands embraced within the group known as the Dry Tortugas, located in the Gulf of Mexico, near the western extremity of the Florida Keys, approximately in latitude twenty-four degrees, thirty-eight minutes north, longitude eighty-two degrees, fifty-two minutes west from Greenwich, and situated within the area segregated by a broken line upon the diagram hereto attached and made a part of this order, are hereby reserved and set aside for the use of the Department of Agriculture as a preserve and breeding-ground for native birds; but the reservation made by this order is not intended to interfere with the use of these islands for necessary military purposes under the Executive Order of September 17, 1845, creating the Dry Tortugas Military Reservation, nor to, in any manner, vacate such order, except

that such military use shall not extend to the occupation of the islet known as Bird Key. This reservation to be known as Tortugas Keys Reservation.

THEODORE ROOSEVELT.

The White House,

April 6, 1908.

(No. 779)

The Niobrara Reservation

In September, 1907, one of our valued correspondents wrote as follows: "The Government has in the Fort Niobrara Military Reservation, Nebraska, about 55,000 acres of sand plains and sand hills, the natural home of the Prairie Chicken and Sharp-tailed Grouse. The land cannot be used for farming purposes and only part of it can be used for grazing. There is feed for these birds the entire year, as, in the last seven years, the sunflower has taken hold in the bare places and will, in time, cover the entire reservation, affording abundant feed when the ground is covered with snow. The Niobrara river runs through the reservation and nearly every four hundred yards on the river is a cañon with a stream of water running its entire length, affording bird shelters in plum thickets, evergreen trees, willows and sumac." I suggest that this be set aside as a bird refuge.

Pursuant to this suggestion, the following application was made to President Roosevelt:

January 17, 1908.

Hon. THEODORE ROOSEVELT,
President United States,

White House, Washington, D.C.

Honored and respected sir:—I enclose you herewith for your information, copies

TORTUGAS KEYS RESERVATION

For Protection of Native Birds

FLORIDA

*Embracing all islands of the Dry Tortugas Group,
Florida segregated by the broken line and
designated "Tortugas Keys Reservation"*



DEPARTMENT OF THE INTERIOR

GENERAL LAND OFFICE

Fred Dennett, Commissioner.

of two letters regarding the Military Reservation of Fort Niobrara, Nebraska, showing the status of the birds there.

This Association was informed that the Government was to abandon Fort Niobrara, and we were going to apply to have it made into a bird refuge, but; subsequently, we were informed that it would be retained by the War Department as a Utilization Depot for the Remount System.

The object of this letter is to ask your Excellency whether it would not be possible to issue an order to prevent all shooting of birds and game on this Military Reservation, in order that it may become a bird refuge in fact. If it is not within the province of the Chief Executive to do so, will you kindly refer me to the proper officer of the War Department to whom I may take this important matter?

The 55,000 acres in question are admirably located for a breeding ground for game birds that are now fast disappearing,

and such an order will in no way conflict with the proposed use of the reservation.

It is vitally important that as many reservations and harbors of refuge for game birds shall be made while we have any of them left; a few years from now will be too late.

You are so heartily in sympathy with our work that I do not hesitate to apply to you for help in this special case.

Very truly yours,
WILLIAM DUTCHER,
President.

The application was promptly and favorably acted upon by the Chief Executive, as detailed in the following correspondence and official notice.

The White House, Washington
April 1, 1908.

My dear Mr. Dutcher:—Referring to your letter of recent date, I beg to send you for your information the enclosed

NOTICE!

OFFICE OF CHIEF QUARTERMASTER,
DEPARTMENT OF THE MISSOURI, U. S. ARMY.
Omaha, Nebraska, March 5, 1908

By Order of the President of the United States.

All persons are hereby prohibited from Shooting, Trapping, Catching, or taking, dead or alive, by any device, on the

Fort Niobrara Military Reservation in Nebraska,

any Sharp or Pintail Grouse, Prairie Chicken, Quail (Bob White), Wild Ducks or Geese of any variety; any Woodcock, Snipe, Wilson-Snipe, Jack-snipe, Plover, Curlew, Virginia-rail, King-rail, Sora, Doves, Meadow-larks, Robins, or any birds of any species; any Beaver, Otter, Jack-rabbit, Cotton-tail-rabbit, Grey, Fox or Red squirrels, or any other game or wild animals; or any Fish, of any species.

THE VIOLATION OF THIS, WILL SUBJECT OFFENDERS TO ARREST AND PROSECUTION IN THE UNITED STATES COURTS.

D. E. McCARTHY,

Major and Quartermaster, U. S. Army,
Chief Quartermaster

report from the War Department, with accompanying copy of a notice in regard to the killing of game on the Fort Niobrara Military Reservation.

Sincerely yours,

WM. LOEB, Jr.,
Secretary to the President.

War Department, Office of the Chief Clerk, Washington. March 30, 1908.

My dear Mr. Loeb:—In connection with previous correspondence concerning the communication of Mr. William Dutcher, President of the National Association of Audubon Societies for the Protection of Wild Birds and Animals, in regard to the preservation of game on the Fort Niobrara Military Reservation, I transmit, herewith, copy of public notice prohibiting the shooting, trapping, or catching of wild game, etc., on said reservation, with the information that copies of the same have been posted at various places on and around the reservation.

Very respectfully,

JOHN C. SCOFIELD,
Chief Clerk.

Hon. William Loeb, Jr.,
Secretary to the President.

Bird Refuges

The importance of bird refuges and reservations is so great that every opportunity is taken to secure them, and, to that end, a five years' lease has just been taken of an island, containing thirty-six acres, in the Connecticut river, near Portland. In a future number of BIRD-LORE we hope to present a good photographic view of this new bird refuge and a short account of it from Mr. John H. Sage, one of our members.

Negotiations are now pending, looking to the purchase of a marsh island containing some five hundred acres, on the New Jersey coast. This marsh contains the only colony of Laughing Gulls left in that state. If negotiations are successfully concluded, a diagram and account of the purchase will be furnished. Funds are being raised by school children.

Field Work

Our field agent, Mr. H. H. Kopman, is now conducting a bird survey along the west coast of Florida. He started from Pensacola late in April, and will make a critical examination of the Florida coast as far south as the mouth of the Caloosahatchee river, for the purpose of locating all of the bird colonies in the territory covered. It is hoped that this survey will enable us to make application for several more bird reservations.

Our Northwest field agent, Mr. William L. Finley, accompanied by Mr. H. T. Bohlman, photographer, is now conducting a bird survey through northern California and southern Oregon, which will extend as far east as Klamath Lake, in order to discover whether there are any large colonies of birds that need special protection. It is hoped that some new reservations may be established in this territory, based on the results of the expedition now going on. If the survey is concluded in time, Messrs. Finley and Bohlman will re-visit the Three Arch Rocks Reservation on the Oregon coast, to compare the present condition of the colonies of birds there with the numbers found when they visited the islands in the summer of 1904, since which date this reservation has received special warden protection.

Mr. Herbert K. Job will make a visit, extending over a period of three weeks, to the Breton Island Reservation and the Louisiana Audubon Islands, and, possibly, to the Tern Islands Reservation, about the first of June. His trip will be made on the patrol boat, 'Royal Tern,' in charge of Captain Sprinkle and his assistant.

In a future number of BIRD-LORE we expect to have a comprehensive report of the condition of the bird colonies at the several places visited, together with some good photographs of the birds.

Reservation News

Warden Kroegel, at Pelican Island, Florida, reports that the Pelicans have had a good season so far; about 1,500 young

Pelicans being raised, and there still being 400 occupied nests.

Warden Small, of Old Man Island, Maine, reports the largest colony of Herring Gulls on the island that he has ever seen, and also twenty-five pairs of Eider Ducks. Our colony of these birds bids fair to become a very large one in time.

Legislation

VIRGINIA.—The legislative results secured during the present season have been, in the main, rather disappointing; principally, however, because we were unable to secure all of the improvements in bird and game laws that were desired. In only



WARDEN SPRINKLE AND PATROL BOAT "ROYAL TERN"

Warden Eastgate, of Stump Lake Reservation, reports: "We have not had so many Ducks in the sloughs on the prairie as are here now; Mallards and Pintails have good-sized nests of eggs. Think there will be a large number of local birds breed this year. Pinnated and Sharp-tailed Grouse are everywhere; the Pinnated much thicker than ever before."

The above reports show the very great value, in actual results secured, of bird refuges. More of them are needed.

one instance, however, was any decided setback experienced. This was in Virginia, where the legislature amended the model law by removing protection from Owls, Hawks, Eagles, Blackbirds, Ricebirds, Bobolinks and Doves, and amended the game law by removing all protection from Wilson's Snipe and Robin Snipe. Such legislation is retrograde in character, and it is hard to understand how legislators of intelligence are willing to enact such statutes in view of the present general

knowledge of the economic value of birds. This is a case where prejudice seems largely to have been a compelling force. For instance, why should the Ricebird be placed in the unprotected list in Virginia, where no rice is now, nor has it ever been grown. When the Bobolink becomes the Ricebird on its southward migration, it is found in the same territory where Rail are hunted, and it is likely that the Rail shooters instigated the removal of protection from the Ricebirds in order that these birds might be shot without restriction; and, as there was little knowledge of or interest in birds among the legislators, this bad legislation was enacted.

MISSISSIPPI.—The Legislature adjourned without the bill introduced by this Association having come to a vote. It was favorably reported by both the House and Senate Committees, and was on the calendar for final passage when the Legislature adjourned. Field Agent Kopman reports that the time he spent upon the bill was not wasted, as the Governor will recommend its consideration at the next special session of the Legislature.

SOUTH CAROLINA.—A bill to improve the game law of this state was introduced by the Audubon Society, but, owing to the short session of the Legislature—only forty days—it was not enacted before adjournment. The bill will be reintroduced promptly at the next session of the Legislature in January, 1909.

MARYLAND.—No changes of moment were made in the Maryland bird and game laws. A large number of local bills were introduced, but failed of passage.

NEW JERSEY.—A strenuous fight took place for the January first water-fowl and shore-bird law in this state, but it was only partially successful. Every possible legitimate pressure was brought to bear to have the necessary law adopted, but the large majority of the citizens of the state who wished to have this law adopted were again over-ruled by the small minority.

There were several important gains made, as follows: Summer Woodcock shooting is prohibited. The open season for Ducks, Geese, Brant, and Swan is from October 15th to January 1st in ten of the twenty-one counties in the state. Unfortunately, these are the ten counties where there is very little water-fowl shooting. In the other eleven counties, which include the entire coast, the open season for Ducks and Swan is from November 1st to March 15th, and for Geese and Brant from November 1st to March 25th. While this shortens the seasons materially, yet it still permits the killing of these fast-disappearing birds after January 1st.

There was no change in the shore-bird law, and they may still be killed in May and June; which is, in view of their rapidly decreasing numbers, an outrage.

A resolution was introduced and adopted in the Senate, appointing a commission with four members to consider the subject of the game laws of the state, with orders to report a proper law at the next session of the Legislature. The commission consists of William J. Harrison, Senator from Ocean county; Everett Colby, Senator from Essex county; Prof. Alexander Hamilton Phillips, of Princeton University; George Batten, President of the Association of New Jersey Sportsmen.

NEW YORK.—The entire bird and game law of the state was revised at the suggestion of Governor Hughes. The revision was made by the President of the Forest, Fish and Game Commission, and the bills known as the Cobb-Mills bills were adopted by the Legislature almost unanimously.

While there were several amendments to the revision bills which were strongly urged by this Association, yet only one of them was adopted, namely, "There shall be no open season at any time for Wood Duck." This was an important and valuable amendment, and New York is the third state to adopt a close season for this species of wild fowl.

The hunting-license feature was adopted by the state. This is a very decided gain

and goes far to allay the feeling of disappointment among the members of the Audubon Society and the New York members of this Association. It will provide a large fund for the use of the game commission in protection and education, and will be a very potent factor in suppressing illegal shooting and enabling the game wardens to identify violators of the law. Hereafter, any one found hunting must have his license upon his person at the time, and must show it to any officer or other person on demand. The fact that a hunter has not a license on his person constitutes a violation of the law.

The amendments that the Audubon Society of New York and this Association desired, were as follows: To stop the shooting of Brant on January first, making the law for this species of wild fowl the same as for Ducks, Geese and Swan, and also to prohibit the possession of wild fowl, except during the open season, instead of for sixty days thereafter; to make uniform open seasons throughout the state for shore birds; to give protection to the valuable species of Hawks, and to prohibit the sale of wild birds' plumage, irrespective of whether said bird was captured or killed within or without this state.

Commissioner Whipple was urged to admit these suggested and necessary amendments in the revision bill, but he was unwilling to hazard the passage of the bill as originally introduced, providing, among other things, the license feature, and he refused to have them made a part of the revision. He, however, is in sympathy with the proposed amendments, and has promised to give his support at the next session of the Legislature to a further effort for their adoption.—W. D.

MASSACHUSETTS.—Early in the legislative session in Massachusetts, we were put on the defensive by a bill, introduced by Senator Treadway, of Berkshire, to abolish the commission on fisheries and game. This bill was defeated in committee, and the petitioners were given leave to withdraw.

A bill was introduced by the State Board

of Agriculture for the purpose of establishing the position of State Ornithologist. The Ornithologist of the Board of Agriculture has been an unpaid official. This bill establishes an official ornithologist with a salary and an appropriation for travelling expenses, apparatus, etc. The bill passed both Houses without opposition, and was approved by the Governor on March 19th.

House Bill No. 1,321 (new draft), protecting gray squirrels at all times until October, 1910, passed and received the signature of the Executive on March 23.

A local statute (House, No. 510), prohibiting the use of boats in the pursuit of wild fowl in certain Edgartown waters, was passed, and, on March 31, was approved by the Governor.

The attempt to secure a law giving deputies or game wardens the right of search without a warrant, which has failed for so many years, was renewed this year. This privilege is essential if the bird and game laws are to be enforced. The bill was reported by the Committee on Fisheries and Game, but was defeated overwhelmingly in the House. The commissioners on fisheries and game consulted with the legislative committee and a new draft was framed and substituted, which passed both Houses. This bill (House, No. 1,279) was signed by the Governor on April 20th. It gives the officers power to request those suspected of violating the law to exhibit any bird, fish, or other animals in their possession. Upon the refusal of the suspect to comply with the request, the officer may arrest without a warrant. The passage of this Act was largely due to the persistency of Dr. George W. Field, chairman of the commissioners on fisheries and game.

The scarcity of upland game birds gave rise to a sentiment in favor of a close season of one year or more and several close-season bills were introduced. Finally, a bill (House, No. 505), introduced by the Massachusetts Fish and Game Protective Association, was passed as a compromise measure, and on April 24 it received the signature of the Governor.

A bill repealing the open season on introduced Pheasants, was championed by Senator Treadway, and was finally passed in a new draft (Senate, No. 330), which gives land owners engaged in propagating Pheasants the right to shoot a limited number of birds on their own premises. This received the Executive's approval May 1.

Two bills to require and provide for the registration of hunters were introduced. These bills were rather hastily drawn, and contained some unnecessary provisions. Representatives of the Commissioners on Fisheries and Game, the Patrons of Husbandry, the State Board of Agriculture, the Massachusetts Fish and Game Protective Association, and the National Association of Audubon Societies, met with some interested members of the House and agreed upon a re-draft combining the best features of the two bills. This bill (House, No. 1,386), which had the active support of the Massachusetts Audubon Society, was reported after a favorable hearing by the legislative committee on fisheries and game, passed both Houses and was signed by the Governor on May 2. The bill passed the House of Representatives by a large majority, largely owing to the good work of Representative Leslie K. Morse, of Haverhill; but it was so strenuously opposed in the Senate by Senator Treadway and others that the most earnest efforts of the friends of the bill were required to secure its passage. The opposition came largely from the western part of the state. Senators Abbott, Stevens, and Jenney were among the strong friends of this bill.

House, No. 507, a bill intended to prohibit all killing of shore birds and wild fowl from January 1 to September 1, was introduced by Representative Gates, of Westboro, and was supported by the Massachusetts Audubon Society. No bill for the protection of birds has excited so much interest as this. The hearing was the largest held before the legislative committee on fisheries and game, and many people appeared in favor of the bill who could not be heard. Among those

who spoke in its favor were many sportsmen and bird protectionists, including Mr. Dutcher, President of the National Association, and Honorable Herbert Parker, former Attorney-General of Massachusetts. But a strong opposition developed, coming mainly from market men, Brant shooters and Duck shooters, and as the majority of the members of the legislative committee on fisheries and game were residents of cities and towns on or near the shore, the influence exerted by gunners and market-men on these members prevented favorable action on the bill and the committee reported reference to the next Legislature. A fight against this report may be made in the Senate. The end is not yet.

The most important legislation secured thus far this year, is the bill for the registration of hunters, which provides money for the enforcement of the game laws and bird laws, and makes possible the enforcement of the license laws against non-resident and alien hunters.

RHODE ISLAND.—Much time was spent by your agent in Rhode Island in the attempt to induce various organizations and individuals to support legislation for the protection of birds. All interested agreed that a bill for the registration or licensing of hunters was the greatest immediate need, for the state appropriates only a few hundred dollars for the enforcement of the game and bird laws. In consequence, the enforcement of the law is lax. A bill (Senate, No. 60), was introduced by the Senate committee on the Judiciary after a large and favorable hearing, but it was laid on the table in the Senate. It appears that a majority of the Senators preferred, instead, a bill for a close season of one year on upland game birds. It was argued that it would be more effective protection to stop all inland shooting for one year than to restrict and regulate shooting by registration and license. It was also argued that, should a close season be established, there would be little revenue from hunting licenses, because there could be no legal shooting of upland game.

The close-season bill (Senate No. 76) passed the Senate and, at this writing, is in the hands of the House Committee on the Judiciary.

A bill was introduced in the Senate to establish a close season on Ducks, Brant, Geese and Swans, from January 1 to September 1. Another was introduced to protect shore birds from January 1 to August 1. These bills have been favorably reported in the Senate and have passed that body. They are, at present, in the House. Another Senate bill (No. 53), intended to repeal the law establishing a bounty on Hawks, Owls and Crows, is still in committee. The adjournment of the Legislature is expected soon. All these bills, with the exception of the bill for the protection of wild fowl, are in accord with the recommendations of the Bird Commissioners of the State of Rhode Island.

EDWARD HOWE FORBUSH.

Another Reason for Wild Fowl Protection

The following is quoted from the Third Report of the Provincial Game and Forest Warden of the Province of British Columbia: "Ducks have again been noticeable by the smallness of their numbers, and the quantity shot has not even compared well with last year, which was a very poor year. Weather conditions were certainly unfavorable during the early part of the season, but lately this cannot be the reason. Year after year, the number of Ducks visiting our coasts get less and less, and, at the present rate of decrease, it simply means that in a few years no Ducks will come at all. There is little doubt that there is too much shooting. Every year there is a greater demand for ducks in the market, and every year there is a larger increase in the number of men out with guns; day after day it is one incessant fusillade, and a Duck no sooner appears on the scene than he is shot at, no matter what distance he is away. Then, too, shooting at night is still carried on in places, and this does more harm than anything else.

The only solution of the question is establishing sanctuaries for the birds to rest in and the adoption of the tag system, whereby the limit of Ducks killed by market hunters could be enforced."

A Good Example and Good Advice

"I enclose check for five dollars as my first annual fee to the National Association, of which I would like to be made a sustaining member. I am very much interested in the preservation of those species of our birds that are nearest to extermination, and I wish to urge that no effort be spared to give such birds as the Willet and Least Tern absolute protection all the time, so far as it is within the power of the Society to do so. A species once lost can never be restored, and we have none to spare."

An Active Game Warden

W. L. Giddings, a deputy in Ohio, says: "I have made a raid on the milliners of Columbus, and have convicted four firms for having aigrettes in their possession; three of which were fined \$25 apiece, with costs, and one \$50, with costs. They say they will not handle them any longer, and have cancelled their orders with New York firms for all bird plumage. I also have three cases in Cincinnati. I will give the other cities a visit as soon as possible, as the New York wholesalers are drumming trade out here at present. I also seized all aigrettes found in the above places of business, condemned them and turned them over to the State."

The Value of the Nighthawk

Recently the stomach of a Nighthawk that was shot in Texas was examined by the experts in the Biological Survey at Washington, and in it were found 300 mosquitoes. Any bird that will destroy such a large number of mosquitoes at one meal is worth to any locality at least \$1 a day, and any person who is willing to kill a Nighthawk should be arrested

and confined in a county jail for at least thirty days. A recent case of vandalism has been called to the attention of this Association: A salesman in one of the western states was traveling in a buckboard and, to amuse himself, he carried a 32-caliber rifle with him, with which he shot Nighthawks from the fences at the roadside. One evening he boasted that in a twenty-mile drive that day he had killed thirty-four Bull-bats, not one of which had he taken the trouble to pick up, but allowed them to lie where they had fallen. If each of the Nighthawks had eaten at one meal 300 mosquitoes, they would have destroyed 10,200 of these vicious insects, and the least punishment that could be wished for such a vandal is that the whole number of mosquitoes could prey upon him at one time.

The Destruction of Plume-Birds*

It is probable that a bill will shortly be introduced into Parliament with the object of preventing the destruction of wild birds for their plumage. A conference on the subject, called by Lord Avebury, was held on March 13, when representatives were present from the British Museum (Natural History Department), Royal Society, Linnæan Society, Zoological Society, Selborne Society, and the Royal Society for the Protection of Birds. The general provisions of the proposed bill were practically agreed upon.

The Destruction of Lapwings

The National Association of Audubon Societies urgently calls the attention of the officers of the Royal Society for the Protection of Birds to the imperative necessity for some action to be taken to stop the killing of large numbers of Lapwings in England and their export to the United States to be served in the hotels and restaurants of the large cities. Recently, 18,000 lapwings were found in one cold-storage house in Jersey City, N. J.; such an

abnormal drain on a single species of birds cannot be maintained for any great length of time without the extinction of the species.

What is needed as much as anything at the present time is an International Bird Protective Association, in order to present to the proper authorities of all the leading countries of the world the necessity for the suppression of the inter-country traffic in the wild birds of each country.

AN INTERESTING AND VALUABLE COMPETITION

The President of the National Association feels that he is barred from entering into the competition proposed below by The Royal Society for the Protection of Birds from the fact that he spends a goodly portion of his time in procuring legislation for the protection of birds, and his knowledge of the subject would be a serious handicap to other competitors. He, however, hopes that some of the bright young Americans who are known to be interested in the legal aspect of bird protection will enter the competition and will succeed in bringing to America the gold medal of the Royal Society.

Regulations for International Competition, 1908

The Gold Medal of The Royal Society for the Protection of Birds (Great Britain) and Twenty Guineas are offered for the best Essay or Treatise on "Comparative Legislation for the Protection of Birds." The essay should take the form of an epitome of the legislation in force in the various countries of Europe (Great Britain excepted), together with a comparison of such legislation with: (a) The law and regulations in force in Great Britain.* (b) The proposals of the International Convention for the Protection of Birds Useful to Agriculture, signed at

*Acts of 1880 (43 & 44 Vict., c. 35), 1881 (44 & 45 Vict., c. 51), 1894 (57 & 58 Vict., c. 24), 1896, (59 & 60 Vict., c. 56), 1902 (2 Edw. VII., c. 6), 1904 (4 Edw. VII., c. 4), 1904 (4 Edw. VII., c. 10), copies of which may be obtained from the Society, 3, Hanover Square, London.

*From 'Bird Notes and News' organ of the Royal Society for the Protection of Birds, London, England. Spring number, 1908.

Paris on March 19, 1902. (c) The model law of the Audubon Societies adopted by certain of the United States of America. (The comparisons to be made in the order as set out above.)

In comparing enactments of Legislatures, the following points should be dealt with in the order named, and may be accompanied by suggestions and criticisms: 1. The close time appointed for all wild birds, or its limitation to certain species. 2. The protection afforded (a) to birds throughout the whole or part of the year; (b) to what birds; (c) to nests and eggs; (d) to special areas or sanctuaries. 3. The prohibition of the sale or possession of protected birds, eggs, or plumage. 4. The schedules of "useful" or "injurious" birds published by any government or under protective laws, and the basis upon which such lists are and should be drawn up and published. 5. The local option allowed for the adoption or modification of the law of a country within its several states, provinces, districts, or municipalities. 6. The working of the existing laws for the preservation of wild birds, and their enforcement by the police and courts, nature of penalties, forfeiture of nets, guns, etc. 7. The permission to take specimens for public museums. 8. The injury caused by the wholesale destruction of migratory birds when on migration. 9. The comparative economic value attached to particular species of birds in different countries.

Essays, which may be written in either English, French, or German, should consist of not less than 10,000 nor more than 25,000 words. They should be printed or typed on one side only of foolscap paper (22 x 32 meters), and be sent, postpaid, not later than December 31, 1908 (with the writer's name and address in a sealed envelope) to the Honorable Secretary the Royal Society for the Protection of Birds, 3 Hanover Square, London, England. Unsuccessful essays will be returned after the award has been made, but the Society reserves the right of printing the whole or part of any of the essays sent in.

Judges will be appointed by the Council

of the Royal Society for the Protection of Birds, and their decision as to the merits of the essays must be regarded as final.

The writers of essays adjudged first, second and third, may be recommended by the Judges for election as Honorary Life Members of the Society.

The Gold Medal will be presented at the Annual General Meeting of the Society, in March, 1909.

By order of the Council,

(Signed) MONTAGU SHARPE,
Chairman.

FRANK E. LEMON,
Hon. Secretary.

3 Hanover Square, London, W.,
January 24, 1908

Helpful Audubon Work

A strong local Audubon Society has been organized at Riverside, Cal., and affiliated with the state Society. Francis Cuttle is president, A. N. Wheelock, S. C. Evans and Dr. Louise Clarke, vice-presidents, Leonard Coop, secretary and L. C. Waite, treasurer. The board of directors include the county and city school superintendents, the mayor of the city, the president of the board of education and other leading men and women of the city. Game- and song-bird protective conditions in Riverside county have greatly improved, and the strongly favorable public sentiment now made effective by organization, promises to practically stop such violations as have been too common in the past. Among the first acts of the new Society will be an effort for a city ordinance prohibiting sling-shots and air-guns, and an appeal to the county supervisors for an ordinance prohibiting all shooting on the public highways. A very efficient and active county game warden is now regularly employed, and the County Game Protective Association, of which W. A. Correll is president, and which is working along advanced protective lines, has closely co-operated with the State Audubon Society during the past year, in the interest of both game- and non-game-bird protection.



1



2



3



4

BRUCE HORSFALL
- 1908 -

1. KINGBIRD

3. WESTERN WOOD PEWEE

2. WOOD PEWEE

4. GRAY KINGBIRD

(ONE-HALF NATURAL SIZE)

Bird = Lore

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No. 4

The Fish Hawks of Gardiner's Island

By FRANK M. CHAPMAN

With photographs by the author

SINCE the publication of Alexander Wilson's 'American Ornithology' the Fish Hawks of Gardiner's Island have figured in the literature of ornithology, and it is characteristic of their delightful home, that, owing to the preserving influences of insular life, the birds are apparently nearly as abundant there today as they were a hundred years ago.

The volume (Vol. V) of Wilson's work in which the Fish Hawk is treated appeared in 1812. In it the Mr. Gardiner who was then proprietor of the island, is quoted as saying that there were at "least three hundred nests of Fish Hawks that have young. . . ." Today I estimate the number at between one hundred and fifty and two hundred, but the difference between these figures and those of 1812 may be less real than due to errors in estimate. In any event, Gardiner's Island holds the largest Fish Hawk colony in this country—possibly the largest in the world—and the conditions under which many of the birds nest offer exceptional opportunities for a study of their habits.

In BIRD-LORE for December, 1903, I gave a brief account of some studies made on Gardiner's Island early in June 1901, and in July 1902, and this is now supplemented by the results of observations made on June 17-20 of the present year.

Mr. Gardiner tells me that the Fish Hawks arrive on the island March 20, and depart on September 20. That the same birds return year after year to the same nest is commonly believed, and in at least one instance this belief was proven true by Mr. Gardiner's grandfather who placed a metal band on the tarsus of a Fish Hawk which for many seasons occupied a certain nest.

Mr. Gardiner does not confirm current statements to the effect that the Fish Hawks repair their nests in the fall; but in the spring there is much activity in nest-building even by birds whose homes are apparently already habitable. The birds gather sticks from the ground and, as I noticed in June last, they also break them from the trees by flying at or dropping on branches and grasping them with their talons. Eel grass is a favorite nest-lining and the birds

often fly about with four- or five-foot lengths of this grass streaming out behind like a long tail.

While most of the Gardiner's Island Fish Hawks select normal nesting sites in trees, about ten pairs of birds place their nests on the ground, and these ground-nesting birds as a rule build on the beach. All the pictures here show



THE OBSERVATION BLIND IN POSITION

are of these beach nests. Some, it will be observed, are small while others hold several cartloads of sticks. Such variation is in part individual and in part due to the age of the nest. In the BIRD-LORE article before referred to I have expressed the belief that these nests are built by birds which have not inherited the tree-building instinct common to their species, but which, nevertheless, succeed in rearing a family because of the absolute protection afforded by their insular environment. I do not observe that the number of beach nests has increased since 1901 and the ground-nesting habit does not, therefore, appear to be hereditary.

The love of Fish Hawks for their nest-site has often been commented on and there are many illustrations of it on Gardiner's Island. Nests built in cedars in time often break the tree, when a new nest is constructed on the ruins of the old one. In one instance, a tall tree standing alone in a field had held a Fish Hawk's nest for as many years as any one could remember. During a storm it fell and the nest was scattered over the ground. The birds then attempted

to build a new nest on the nearly horizontal trunk of the tree at its junction with the stump, to which it was still slightly attached; but as fast as the sticks were brought they fell to the ground a few feet below where a pile of them bore testimony to the birds' failure to comprehend the new conditions by which they were confronted.

Eggs are not laid until seven or eight weeks after the birds' arrival from the south; a delay which, in view of the abundant (formerly, at least) food supply it is difficult to explain. The period of incubation is said to be four weeks, June 2, being the earliest date on which I have found young.

The young are in the nest about six weeks. So far as I have observed, they are under the immediate care of the female who is almost constantly with

them while the male occupies a perch near by. While both birds whistle shrilly when one is near the nest, it is exceptional for them to make any show of defending their young by actual attack. I have never been threatened by the beach-nesting birds, but one which occupied a tree dove at me repeatedly when I climbed to the nest, coming uncomfortably near at each swoop.

The young are reared on the restricted diet of their parents, and so far as my observations go the fish is captured and brought to the nest by the male, usually after he has



FISH HAWK RETURNING TO NEST



FISH HAWK RETURNING TO NEST



FISH HAWK RETURNING TO NEST

satisfied his own appetite by eating part of it. Incidentally it may be remarked that the Gardiner's Island birds secure most of their fish from the numerous

fish traps which, during the summer, are set about the island. They sit patiently on one of the poles to which the net is attached until opportunity offers, when they jump down to the water for their prey,—a far less interesting method of feeding than the thrilling plunge from the air.



FISH HAWK ALIGHTING ON NEST

Note the great length of the legs

Until the present year I had not seen the Fish Hawk feed its young; when, after several hours' waiting, the act was seen many times in two different nests. It is explained by the accompanying photograph in which the female, after tearing small pieces from a fish in the nest, offers it to her young, usually turning her head on one side while the young birds pick the food from her bill.

Young Fish Hawks are models

in behavior. Their obedience is instant and enduring. At the complaining alarm whistle of the parent, they squat flat in the nest and hold their position, possibly for hours, or until the old bird is reassured and permits them to raise their heads. Unlike young Terns, Gulls, or Skimmers, they make no effort to move when touched, doubtless because they have no means of escape. They therefore not only look, but act like dead birds. One can turn them on their backs or place them in any position; putty-like they will remain, their only movement being a rare wink of the half-closed but staring yellow-brown eye. When, however, the parent's suspicions are allayed, and the young are permitted to move, they are often surprisingly alert and active.

The beach nests are exceptionally well situated for the purposes of bird photography, and three of these nests furnished the subjects of my recent studies.



FISH HAWK ALIGHTING

The nest held three young (compare picture of feeding scene), which are squatting low and are not visible



FISH HAWK FEEDING YOUNG

These were conducted from the umbrella blind which I find indispensable to success in any effort to gain an insight into the home-life of birds. Both nests and blind were conspicuous objects on the beach and, as in many other instances, it proved to be important to have a coöperator whose departure, after I had entered the blind, apparently reassured the owners of the nest within thirty



FISH HAWK LEAVING NEST
An Audubon Society Warning Notice at the left

feet of which the blind was placed. To enter the blind alone, is to invest it with your personality, when the bird will not return to its nest until the impression created by your presence has become dimmed. At the best the blind itself is regarded with much suspicion, and although the bird may return to her nest before your companion is two hundred yards away, she regards the blind intently, peering with a sinuous motion of the neck as though her gaze would penetrate the cloth itself. Some birds are satisfied more easily than others and after half an hour accept the blind without further question. Others keep it under close surveillance for two hours and during this time the slightest sound or movement of the cloth is greeted with the complaining alarm whistle, which, if the cause be continued, arises to a shrill crescendo.

In studying the life of the second nest here figured, the blind was entered at eleven o'clock, when the male was seen flying about with a bit of fish which he was evidently about to bring to the nest. The female returned to the nest within ten minutes after my companion left me, but it was not until 12:50 that she ceased to regard the blind with more or less alarm. During this time the male flew about rapidly with the bit of fish still grasped in his left foot, or perched

on the ground a hundred yards away. At 12:50 the female dropped all caution, and the previously often repeated alarm note was replaced by a wholly different call, a high, rapidly uttered *tweet-tweet-tweet*, which proved to be a food call to the male. At one o'clock, in response to it, he came to the nest, but the blind was too near, and, taking wing almost as he alighted, returned to his perch on the beach. Again the female uttered her food call and the young were now permitted to move about the nest. Finally the male came, but, as before, his fears overcame him and he departed quickly, taking the fish with him. Three times this performance was repeated, and on the fourth, the female, losing patience or prompted by hunger, attempted to take the fish from his foot with her bill, when, as the male arose, the fish was pulled from his grasp and dropped over the edge of the nest to the sand at its base. This was a catastrophe with which neither bird was prepared to cope. The male made no move to get another fish, but went back to his perch in the meadow. The female repeated her food call more loudly and the young apparently asked for food, but no experience had fitted her to deal with this chain of events and the fish at the foot of the nest was left where it fell.



YOUNG FISH HAWKS FEIGNING DEATH

The Return of the Snowy Heron

By HERBERT RAVENEL SASS

THAT the Snowy Heron (*Egretta candidissima*) would ever reestablish itself in its former breeding places on the South Atlantic coast north of Florida seemed, until very recently, a possibility so remote as to be unworthy of serious consideration. Twenty-five years ago, it is true, this species was common in the South, breeding in thousands on small islands or 'hammocks' in the salt marshes—a race so strong in numbers, so beautiful, and so harmless to man that none could foresee the doom which was so shortly to overtake it. Yet, when once Fashion had decreed that the Snowy Heron's delicate nuptial plumes be used to ornament women's hats, this loveliest of all our marsh-land birds was in a very short time almost blotted out of existence. Along this coast—which for excellent reasons shall be nameless—where formerly it nested in such multitudes, it was considered, up to a few weeks ago, practically, if not absolutely, extinct.

On May 15, 1908, while exploring certain marshes and sea-beaches in quest of breeding colonies of birds, I was informed of a certain small island or hammock in the marsh which was a favorite resort of white and blue 'Cranes.' Supposing that these 'Cranes' were merely Little Blue Herons—an abundant species—in the immature and adult phases, this information seemed of slight importance; but, as the hammock referred to lay close to the river down which our launch was proceeding, we decided to land and have a look at it. The river, which is here a broad tide-water stream, is bordered on either side by wide areas of salt marsh; and presently, when we were still some miles distant, the skipper pointed out the island where he had seen the 'Cranes.' Watching it idly as the launch sped swiftly down the river, we could see a few Herons—some white, some dark in color—flying about above the dense bushes covering the island. At that distance, however, we could distinguish nothing to arouse my suspicions that the birds were other than Little Blue Herons; and it was not until we had left the launch and were ploughing our way through the gummy 'pluff' mud toward the 'hammock'—which was situated in the marsh about one hundred and fifty yards from the river—that I suddenly realized that we had discovered a strong breeding colony of the supposedly vanished Snowy Heron, and that the dark birds which I had thought were Little Blues were in reality Louisiana Herons.

To describe in detail my first visit to this heronry is inadvisable for several reasons. In the first place, we discovered later another heronry where a still larger colony of Snowies is established; and moreover I made several subsequent visits to the two hammocks which were in some respects more satisfactory than my first visit. It seems best, therefore, to describe collectively the results of my various trips to these most interesting localities.

The two little islands or hammocks upon which we found the Snowy Herons

breeding resemble each other quite closely. Both are surrounded by marsh or 'pluff' mud and both are clothed with a dense cover of bushes or low trees, few of them more than fifteen feet in height. The first hammock discovered has an area of about three acres, while the second is somewhat larger. The smaller hammock is completely covered by a thick growth of 'sparkleberry' bushes, yuccas, and palmettoes, while on the other island the yuccas and palmettoes are absent or inconspicuous and the sparkleberries form almost impenetrable clumps or thickets surrounding a number of small grass-grown, open spaces.

The bird population of these two little marsh-land strongholds is remarkably large considering the small size of each hammock. The Herons observed belong to five species—Snowy, Louisiana, Little Blue, Green, and Black-crowned Night Heron; and in addition hundreds of Boat-tailed Grackles, a few Red-winged Blackbirds, a pair of Carolina Doves, and a few Nonpareils are rearing their young in close proximity to the nests of their larger long-legged neighbors.

Disregarding the smaller birds and considering only the Herons, we estimated the population of the smaller hammock at between six hundred and seven hundred, and of the larger at not less than a thousand. On each island the Louisiana and Green Herons outnumber the other species, though, especially on the larger island, the Night Herons are well represented. We saw only a few Little Blues—almost all of them immature birds whose white plumage was flecked here and there with slate.

All these, however, are common species, mentioned only because we found them breeding in close association with their rare kinsman, the subject of this article. The number of Snowies observed at the smaller heronry we estimated at between one hundred and one hundred and fifty, while the number seen at the larger island was hardly less than two hundred. These figures, however, may be either considerably too large or too small, for actual counting was an impossibility.

At each island, as we approached, the birds would rise from the bushes in successive waves or clouds, so rapidly that, by the time we had counted forty or fifty Snowies among their number, we would have to give up the attempt. At the larger heronry, the Snowies were very wild, and after flying about in the air for a few minutes, most of them betook themselves out into the marsh and alit about a quarter of a mile away. At the other island they are much tamer—though not nearly so tame as the graceful Louisianas which would pass and repass close above our heads or alight on the tops of the bushes less than twenty feet from us. The Night Herons also were rather shy, most of them raising high in the air and sailing about well out of range. The scene was always one of great animation. Hundreds of birds were continually wheeling about above the bushes, Louisianas and Greens for the most part, but with a good sprinkling of Snowies and Night Herons. Others fluttered from place to place, while others again perched on the tops of the bushes around us, eyeing us with the greatest

curiosity. The Snowies, so far as I observed, remained absolutely silent, but the Louisianas constantly uttered their queer calls, sounding like the quacking of ducks, while the Green and Night Herons were especially noisy, and the scores of young Grackles flitting from bush to bush were never silent for a moment.

Among the hundreds of nests on each island we found only one which we could say positively belonged to a pair of Snowy Herons. The nests and eggs of the Snowy, Louisiana and Little Blue are practically indistinguishable from one another; and I was not aware of any differences by which we could separate the downy young of these three species, I was unable to form any estimate of the number of Snowy Heron nests on either island. Moreover, the parent birds would not visit the nests while we were nearby, although they often perched on the tops of the bushes in which the nests were situated. On all three of my visits—May 15, 22, and 29—I saw many nests which contained young birds covered with yellowish white or cream-buff down; and some of these must undoubtedly have been young Snowies, though most of them were probably Louisianas. Probably, also, some of the nests which contained eggs still unhatched belonged to the Snowies. It is surprising, however, that we found no Snowies among the nestlings which had passed beyond the downy stage. I can explain this only on the assumption that the Snowies laid their eggs later than the Louisianas and Little Blues and that none of their young had begun to acquire feathers at the time of my last visit on May 29. In only one instance did we find evidence which clearly proved a nest to be the property of a pair of Snowies. This nest was found on the smaller island on May 15 and upon it sprawled a dead Snowy Heron with one unbroken egg beneath the lifeless body.

Definite measures are being taken in coöperation with the National Association of Audubon Societies, to ensure the protection of these colonies against plume-hunters. Owing to their situation, the problem of safeguarding the two little islands should not be a difficult one; and there seems to be good reason to hope that the Snowy Heron will succeed in reëstablishing itself along the coast.



GRAY KINGBIRD

Photographed on Ragged Island, Bahamas, April, 1907,
by George Shiras, 3d

A Little Blue Heron Rookery

By M. HARRY MOORE

ABOUT nine miles northeast of DeFuniak Springs, Florida, is a beautiful body of water called Lake Cassidy. It is fringed by magnificent cypress trees draped in long "moss,"—a border necessarily narrow on account of the abrupt sloping of the banks upward to the surrounding forest of the stately long-leaved pines. A small portion of the northern part of this lake is being filled up by nature and is now in the intermediate stage between lake and swamp. Many shrubs grow here in the shallow water, as well as an abundance of white and yellow pond-lilies, and other water plants. In the shallower places among the bushes, sphagnum has transformed it into a bog. It is in this marshy part that the Little Blue Herons nest during the warm days of spring and summer. Having visited the place three years before, and knowing that it was a favorite place for these Herons, we decided to visit the lake again and make a fuller study of their early nesting habits, for it was late in July when I was at the rookery before.

On May 1, 1908, we started and reached the lake a short time before sunset. We saw several little Green Herons and a few Little Blues flying about. However, it was too late to go to the rookery, for it was nearly a mile distant from the landing. We concluded to wait and take an early start next morning. So, we built a camp-fire, and disregarding the "redbugs," or "chiggers," we lay down to sleep on the ground near the fire. As day was dawning over the lake we were making ready, and by the time it was light we were on our way in a small boat. We had not gone far when we observed a large flock of ducks near the center of the lake, but they took flight before we got near enough to identify them. After our effort to get near the ducks, we once more started for the rookery. A little farther on the way, our attention was attracted by a large alligator floating ahead, but it sank out of sight as we approached.

As we got near the rookery, we could see the Herons flying in every direction,—some flying in toward their nests and others leaving for their feeding-grounds. Seeing that it was almost impossible to reach the rookery by boat, we landed and walked around to the point of the shore nearest it. From here we decided to wade to the rookery which was about one hundred yards distant. This was not easy, for the water was about three and one-half feet deep, and the bottom was not firm, and all the time we were half expecting to see an alligator rise to the surface. We reached the rookery in safety, however, and found what more than repaid us for our trouble.

Here, in a dense thicket of shrubs of the Heath Family (*Leucothoe racemosa*), less than a half-acre in extent, we found two or three hundred nests of the Little Blue Heron. The bushes were standing in water about two feet deep, and the nests were in the bushes about three or four feet above the water. The nests were built of twigs, being little more than mere platforms of sticks. They

were very close together, being only a few feet apart. In the nests were found both eggs and young. The eggs were blue, and four was the prevailing number in each nest. A very few sets of five were noticed. May 2 seemed to be the very height of the hatching period. Probably a third of the eggs were hatched, and none of the young were more than a few days old on this date. The young have



YOUNG LITTLE BLUE HERONS

considerable white down on them when hatched. After examining the rookery to our satisfaction, we made a few kodak pictures of the nests and their contents. During our little stay, the young kept up an almost continuous noise which reminded one of the squawks of the old birds, although not nearly so loud. On our approach the parent birds had taken flight and had retreated to the cypress trees in the edge of the lake. A few, however, kept flying over the rookery uttering their alarm notes. A few white (immature) Herons were among the adults, and a few that were changing from the immature plumage to that of the adult.

Almost as soon as we left the place, the old birds returned and settled down as though nothing had occurred.

On May 9 we again visited the rookery and found nearly all of the eggs hatched, and many of the young large enough to climb up the bushes, and this they do by the use of their bills as well as their feet. Another visit on May 15 found many of the young birds sitting up on top of the bushes..

In the vicinity surrounding the rookery, is an excellent place for marsh-loving birds, and among its tenants were Red-winged Blackbirds, Least Bitterns, Purple Gallinules, Florida Gallinules, and a pair of Wood Ducks. Two or three species of Swallows were flying about. A Cormorant and several Anhingas flew over that part of the lake while we were there. We found several nests of the Red-winged Blackbird, some containing eggs and some young. A Least Bittern's nest was also found in the bushes, and a nest of the Southern Parula Warbler in the long 'moss' (*Tillandsia*) on a cypress tree.

The Herons approach their nests by flying as much as possible over water. They come in flying rapidly, and alight near their nests,—then with a few peculiar squawks they approach the nest and feed their young, and then fly away in search of food again. After a great deal of watching, we failed to see the adult Herons feeding in the lake. This, we thought, was strange because to us the immediate vicinity seemed to afford good feeding grounds. We heard lots of frogs, and saw bream, or sunfish, swimming in the shallower parts of the lake.

The young Herons have one habit in common with the vultures,—although not so well developed,—and that is, when handled or disturbed too much they sometimes eject the contents of their stomachs. On account of this habit, we learned that their food consisted of frogs, fish, and crayfish.

There are two birds which cause the Herons a great deal of annoyance. One is the Kingbird which will pursue a Heron every time one comes close to his perch, and he gives him quite a chase, the Heron squawking and doing his best to get away. Another tormenter is the Red-winged Blackbird which will angrily chase a Heron if it gets near his nest, and this the Herons can hardly avoid doing in going from and coming to the rookery.

These Herons are not nearly so plentiful at this place as they were three years ago. Either some have changed their nesting places, or they are decreasing in numbers,—probably the latter.



The Migration of Flycatchers

FIFTH PAPER

Compiled by Professor W. W. Cooke, Chiefly from Data
in the Biological Survey

With Drawings by LOUIS AGASSIZ FUERTES and BRUCE HORSFALL

KINGBIRD

The Kingbird winters south of the United States and comes north in the spring across the Gulf of Mexico, in a path much less than a thousand miles wide, whence it ranges northeast, north and northwest, until it reaches the northern limit of the breeding range, which extends for nearly three thousand miles in width from Newfoundland to British Columbia.

SPRING MIGRATION

PLACE	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
<i>Atlantic Coast—</i>			
Northern Florida.....	11	March 24	March 14, 1907
Southeastern Georgia.....	8	March 29	March 27, 1906
Southern South Carolina.....	12	April 5	March 28, 1878
Raleigh, N. C.....	17	April 18	April 13, 1900
Asheville, N. C. (near).....	4	April 24	April 22, 1891
Variety Mills, Va.....	20	April 25	April 17, 1888
New Market, Va.....	13	April 25	April 18, 1896
White Sulphur Springs, W. Va.....	8	April 24	April 18, 1896
French Creek, W. Va.....	5	April 24	April 19, 1891
Washington, D. C.....	23	April 29	April 18, 1896
Renovo, Pa.....	12	May 2	April 26, 1903
Caldwell, N. J.....	10	May 5	April 28, 1885
Southeastern New York.....	13	May 5	April 29, 1891
Alfred, N. Y.....	17	May 9	May 2, 1887
Ballston Spa., N. Y.....	12	May 8	May 1, 1890
Jewett City, Conn.....	17	May 3	April 26, 1895
Portland, Conn.....	7	May 5	May 2, 1894
Hartford, Conn.....	10	May 7	May 3, 1906
Hadlyme, Conn.....	14	May 7	April 26, 1896
Providence, R. I.....	8	May 8	May 3, 1905
Eastern Massachusetts.....	18	May 5	April 30, 1896
Randolph, Vt.....	7	May 10	May 5, 1890
St. Johnsbury, Vt.....	12	May 10	May 5, 1894
Milford, N. H.....	7	May 8	May 4, 1904
Hanover, N. H.....	7	May 9	May 3, 1889
Southwestern Maine.....	25	May 9	May 3, 1904
Sherbrooke, Que.....	4	May 17	May 15, 1904
Scotch Lake, N. B.....	7	May 17	May 13, 1902
Chatham, N. B.....	11	May 21	May 12, 1907
Pictou, N. S.....	6	May 22	May 16, 1894
Prince Edward Island.....	11	May 23	May 19, 1894
Godbout, Que.....			May 27, 1891
<i>Mississippi Valley—</i>			
Southern Louisiana.....	9	March 25	March 19, 1894
Southern Mississippi.....	11	March 29	March 24, 1890

SPRING MIGRATION, continued

PLACE	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
<i>Mississippi Valley—</i>			
Sewee, Tenn.....	6	April 19	April 17, 1899
Eubank, Ky.....	12	April 19	April 12, 1889
St. Louis, Mo.....	6	April 19	April 15, 1888
Odin, Ill.....	9	April 19	April 16, 1896
Brookville, Ind.....	7	April 25	April 18, 1889
Waterloo, Ind.....	13	April 29	April 22, 1896
Wauseon, Ohio.....	11	April 27	April 20, 1889
Oberlin, Ohio.....	11	April 27	April 22, 1902
Petersburg, Mich.....	12	April 30	April 23, 1885
Southwestern Ontario.....	22	May 3	April 28, 1905
Ottawa, Ont.....	19	May 9	May 3, 1896
Keokuk, Iowa.....	12	April 25	April 23, 1903
Central Iowa.....	26	April 26	April 22, 1897
Chicago, Ill.....	16	May 1	April 24, 1897
Southern Wisconsin.....	23	May 2	April 20, 1896
Lanesboro, Minn.....	8	May 7	April 24, 1891
Kerrville, Texas.....	5	April 26	April 22, 1902
Northern Texas.....	12	April 17	April 10, 1885
Manhattan, Kans.....	8	April 24	April 21, 1891
Onaga, Kans.....	15	April 25	April 19, 1891
Syracuse, Nebr.....	8	April 26	April 25, 1900
Rapid City, S. D.....	3	May 9	May 8, 1906
Larimore, N. D.....	7	May 17	May 10, 1904
Aweme, Manitoba.....	14	May 15	May 10, 1904
Reaburn, Manitoba.....	7	May 16	May 12, 1900
Indian Head, Saskatchewan.....	6	May 18	May 14, 1906
Osler, Saskatchewan.....			May 17, 1893
Southeastern Colorado.....	3	May 6	May 3, 1905
Denver, Colo. (near).....	7	May 11	May 7, 1889
Cheyenne, Wyo.....	3	May 11	May 9, 1889
Terry, Mont.....	7	May 16	May 13, 1905
Columbia Falls, Mont.....	4	May 21	May 15, 1896
Rathdrum, Idaho.....	7	May 27	May 20, 1900
Edmonton, Alberta (near).....	4	May 24	May 21, 1903
Southern British Columbia.....	4	May 24	May 16, 1906
Fort Simpson, Mack.....			June 1, 1904

FALL MIGRATION

PLACE	Number of years' record	Average date of last one seen	Latest date of the last one seen
Southern British Columbia.....	3	September 6	September 8, 1889
Columbia Falls, Mont.....			September 11, 1895
Aweme, Manitoba.....	8	September 5	September 17, 1907
Ottawa, Ont.....	10	August 26	August 29, 1897
Southwestern Ontario.....	7	September 2	September 9, 1891
Oberlin, Ohio.....	7	September 9	September 17, 1906
Wauseon, Ohio.....	5	September 16	September 28, 1894
Chicago, Ill.....	6	September 6	September 25, 1895
Central Iowa.....	13	September 8	September 30, 1888
Onaga, Kans.....	11	September 7	September 11, 1905
Bonham, Texas.....			October 17, 1885
Biloxi, Miss.....			October 20, 1905

FALL MIGRATION, continued

PLACE	Number of years' record	Average date of last one seen	Latest date of the last one seen
Southern Louisiana.....	4	October 3	October 23, 1903
Prince Edward Island	7	August 31	September 4, 1899
Scotch Lake, N. B.....	3	September 6	September 16, 1901
Southwestern Maine.....	14	September 5	September 12, 1900
Durham, N. H.....	3	September 7	September 11, 1900
Providence, R. I.....	7	September 4	September 12, 1899
Renovo, Pa.....	6	September 6	September 15, 1901
Berwyn, Pa.....	4	September 5	September 10, 1904
Washington, D. C.	5	August 20	September 23, 1905
French Creek, W. Va.	3	August 27	September 20, 1890
Raleigh, N. C.....	5	September 1	September 18, 1893
Frogmore, S. C.....			September 19, 1886
Tallahassee, Fla.....			September 11, 1904

South of the United States the arrival of the first Kingbird has been noted in southern Mexico September 3, in southeastern Nicaragua September 8, and in northern Colombia September 19.

WOOD PEWEE

SPRING MIGRATION

PLACE	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
<i>Atlantic Coast—</i>			
Whitfield, Fla.....			April 4, 1903
Coosada, Ala.....			April 9
Southeastern Georgia.....	3	April 15	April 14, 1905
Southern South Carolina.....	3	April 15	April 14, 1889
Raleigh, N. C.....	13	April 23	April 21, 1888
Asheville, N. C. (near).....	6	April 29	April 27, 1902
Variety Mills, Va.....	18	May 3	April 23, 1889
French Creek, W. Va.	5	May 4	April 25, 1889
Washington, D. C.	21	May 5	April 29, 1900
Waynesburg, Pa.....	4	May 5	May 2, 1892
Beaver, Pa.....	5	May 8	May 6, 1902
Renovo, Pa.....	11	May 9	May 3, 1899
Germantown, Pa.....	4	May 14	May 12, 1889
Englewood, N. J.....	12	May 17	May 10, 1900
Southeastern New York.....	10	May 16	May 10, 1890
Ballston Spa., N. Y.....	11	May 18	May 15, 1900
Hartford, Conn.....	14	May 18	May 14, 1899
Hadlyme, Conn.....	8	May 19	May 11, 1900
Providence, R. I.....	10	May 21	May 16, 1899
Eastern Massachusetts.....	20	May 18	May 12, 1899
Randolph, Vt.....	8	May 24	May 19, 1896
Southwestern Maine.....	12	May 22	May 14, 1903
Montreal, Canada.....	6	May 23	May 18, 1889
Scotch Lake, N. B.....	5	May 27	May 23, 1902
Prince Edward Island			May 20, 1887

SPRING MIGRATION, continued

PLACE	Number of years' record	Average date of spring arrivals	Earliest date of spring arrival
<i>Mississippi Valley—</i>			
Bay St. Louis, Miss.....			March 25, 1906
Southern Louisiana.....	9	April 10	March 27, 1897
San Antonio, Texas (near).....	9	April 20	April 9, 1890
Northern Texas.....	7	April 26	April 18, 1885
Helena, Ark.....	13	April 22	April 12, 1897
Athens, Tenn.....	6	April 25	April 23, 1902
Eubank, Ky.....	10	April 28	April 26, 1892
St. Louis, Mo.....	6	April 29	April 28, 1885
Brookville, Ind.....	6	May 7	May 4, 1892
Waterloo, Ind. (near).....	8	May 8	May 5, 1905
Oberlin, Ohio.....	10	May 6	May 2, 1905
Plymouth, Mich.....	6	May 10	May 6, 1896
Petersburg, Mich.....	10	May 10	May 6, 1887
Southwestern Ontario.....	15	May 14	May 8, 1884
Keokuk, Iowa.....	10	May 9	May 4, 1902
Central Iowa.....	20	May 10	May 3, 1905
Chicago, Ill.....	15	May 12	May 5, 1885
Lanesboro, Minn.....	6	May 15	May 10, 1887
Onaga, Kans.....	15	May 19	May 9, 1902

FALL MIGRATION

PLACE	Number of years' record	Average date of last one seen	Latest date of the last one seen
Aweme, Manitoba.....			August 30, 1901
Lanesboro, Minn.....	5	September 14	September 23, 1888
Central Iowa.....	17	September 19	September 28, 1898
Chicago, Ill.....	6	September 21	October 3, 1885
Southwestern Ontario.....	8	September 20	September 27, 1905
Oberlin, Ohio.....	7	September 19	September 27, 1899
Wauseon, Ohio.....	9	September 26	October 4, 1890
Waterloo, Ind.....	9	September 24	October 1, 1889
Eubank, Ky.....	7	October 9	October 15, 1888
Athens, Tenn.....	5	October 17	October 22, 1902
Southern Louisiana.....	7	October 24	November 2, 1900
Prince Edward Island.....			August 25, 1889
Scotch Lake, N. B.....	3	August 25	September 13, 1906
Montreal, Canada.....	4	September 6	September 11, 1887
Southwestern Maine.....	8	September 15	September 27, 1898
Renovo, Pa.....	6	September 22	September 29, 1902
Englewood, N. J.....			September 28, 1885
Washington, D. C.....	5	October 4	October 12, 1906
French Creek, W. Va.....	3	October 9	October 13, 1891
Raleigh, N. C.....	7	October 9	October 13, 1891
Punta Rassa, Fla.....			November 23, 1885

The Wood Pewee begins its southward migration so early that it was seen in southeastern Nicaragua August 21, 1892, and arrived August 21, 1889 at San Jose, Costa Rica.

WESTERN WOOD PEWEE

SPRING MIGRATION

PLACE	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
Southern California.....	5	April 19	April 15, 1907
Southern Arizona.....			April 27, 1885
Southern British Columbia	4	May 17	May 9, 1889
Beulah, Colo.....	4	May 17	May 15, 1906
Columbia Falls, Mont.....	5	May 27	May 20, 1897
Aweme, Manitoba.....	7	May 27	May 22, 1904
Red Deer, Alberta.....			May 22, 1892
Skagway, Alaska.....			May 3, 1899

FALL MIGRATION

Some dates of the last seen are : Aweme, Man., September 13, 1902 ; Columbia Falls, Mont., September 9, 1895 ; Beulah, Colo., September 5, 1903 ; Southern California, September 30, 1894.



FEMALE NIGHTHAWK

Photographed by Warren C. Tudbury, May 26, 1906, at Golden's Bridge, N. Y

Notes from Field and Study

Observations on a Tame Loon

A Loon, or Great Northern Diver, was received at the New York Aquarium in September, 1907, where it was kept in one of the large salt-water pools for about a month, when it was sent to the Zoölogical Park. It came from the United States Fisheries Station at Woods Hole, Mass., where it had been kept all summer in a large salt water basin adjoining the wharf piers.

The Aquarium pool, which is twenty-eight feet long and three feet deep, contained at the same time a collection of dogfish (*Squalus*), skates and sculpins. Although the Loon was supplied with an abundance of live killifishes, its activity led it to strike frequently at the large fishes, and it succeeded in swallowing one of the sculpins with a head larger than its own. The other sculpins were too large to be swallowed.

Although supplied with a dry platform on which to rest, it never left the water of its own accord. Its breast plumage showing a tendency to become water logged, the attendants removed it each evening to a box of dry excelsior, where it spent the night. It never *sat up* in any way, either on the platform or in the box, always resting on its breast except when it rolled upon its side for the purpose of preening its under plumage. When in the water the bird frequently turned almost on its back when dressing its breast feathers. Rolling over on one side, with one foot still submerged, it swam slowly in a circle during the process, the other foot being held entirely clear of the water.

In exploring the bottom of the pool, or in pursuit of killifishes, it swam under water *with the wings closely folded*—never in use, and it spent much time swimming on the surface *with the eyes submerged*, watching the large fishes below. The Loon frequently shook the water from its feathers by rising to a vertical position, as Ducks

do, and flapping the wings, while its feet beat a lively tattoo in maintaining the position.

Although apparently full grown, the characteristic black neck-ring had not yet appeared.

Its only note was a low murmur when the attendants approached. The bird never made any attempt to fly and was quite tame, not attempting to bite when handled.

In referring to the bird's ability to sit erect or stand on its feet, Audubon writes of a Loon wounded by his son, that "it immediately rose erect on its feet and, inclining its body slightly forward, ran or stumbled, rose again and getting along in this manner, actually reached the water before my son." He says that the female, frightened from her nest, "makes at once for the water in a scrambling and sliding manner, pushing herself along the ground."

Audubon's remark on the female Loon corresponds with my own observation on the wild bird leaving its nest.

Montagu says of Loons, "in swimming and diving only the legs are used and not the wings." While Audubon writes: "having myself seen Loons pass and repass under boats . . . and propel themselves both with their feet and their half-expanded wings, I am inclined to believe that when not wounded and when pursuing their prey they usually employ all the limbs."—C. H. TOWNSEND, *New York City*.

When Doctors Disagree

Ornithologia Faceta

About May 12, 1908, I had the good fortune to secure three specimens of a bird whose identity was unknown to me. These specimens were taken on lower Broadway, New York City, a locality peculiarly rich in puzzling forms. To establish the position of the species in our avi-fauna, and to place the specimens

where they would be most available to science, I sent one to each of the three leading museums of the country, at the same time requesting information from three of our leading ornithological experts, located at the respective institutions to which the specimens were sent.

It may be of interest to here state that the birds were at this time active and in full song, the latter having a marked individuality.

I quote replies in the order in which they were received: "The specimen presented by you to the Museum arrived safely and we are greatly indebted for same. As it is undoubtedly a new species and genus, I have named it *Bowdishia americana*. The specific name being on account of the striking red, white and blue coloration of its wings. If you do not think the specimen will fade, we will be glad to put it on exhibition provided you will present us with a suitable case."

"After serious consideration I do not think that I care to hazard an identifi-

cation of your bird. We have the song, it is true, but species of this group are so involved that sexual and seasonal plumages are absolutely necessary for correct determination. It is obviously one of the *Christmas volans* group, probably of the genus *Fakir ijerus*, but further than this I cannot go."

"The bird you send for identification proves to be an *Umslophagus Angelicus*, in very fresh plumage. It is a very rare bird in these parts, and appears only at distant intervals.

"Some birds, as you know, portend rainy spells, or hard winters, or even famines, but not so with the *Umslophagus*. He is a sure sign of extraordinary upheavals in the American Ornithologist's Union Check-list, with a special leaning toward ripping the nomenclature of the Owls and Sparrows wide open. I judge from the date of the arrival of the *Umslophagus*, that the upheaval will occur in the month of July."

In view of the variance of opinion indi-



BOWDISHIA AMERICANA

cated by the foregoing letters, I leave it to the learned reader to decide for himself the position which the discovery should occupy in our avi-fauna, also what its advent may portend to American ornithology.—B. S. BOWDISH, *New York*.

A Pair of Blue-gray Gnatcatchers That Moved Their Nest

On April 5, 1908, I found a pair of Blue-gray Gnat-catchers building their nest. They had begun it upon a dead branch of a mulberry tree about twelve feet from the ground. Both male and female worked at the nest, always giving a sharp note while at work. In gathering lichens from the trees, the little bird would catch a piece with its bill and then flap its wings and pull until the lichen came off. The work on the nest continued for ten days, at the end of which time there seemed to be a lull, and the nest was apparently abandoned.

Two days later I heard them at the nest again, and noticed that they seemed to be tearing it to pieces. I found that they were moving it to a nearby thicket—a distance of about fifty yards. By watching them, I soon discovered that they were rebuilding the nest in a small oak, only about three and one-half feet from the ground. Here they completed it and covered it with lichens, so that it was almost impossible to be noticed. The female began laying eggs, but after she had laid three, something began to take the eggs one by one. Although she continued to lay an egg each day for four days, she at last became discouraged, and the pair quit the neighborhood.—ANGUS MCKINNON, *De Funiak Springs, Florida*.

A Humming Bird's Toilet

On May 30, 1908, I was walking up Eagle Rock Canon, just north of this city, collecting botanical specimens. I had stopped near a small pool in the little rivulet and, while standing there, a Hummingbird darted down to the water. Her movement was so swift that I could

not tell whether she entered the water or not, but she flew up and perched on a small twig, not more than six feet from my face, and began preening herself. First, with her bill, she would arrange her back and tail feathers, and then, standing on one foot, she would arrange the feathers of her neck and head, continuing clear down to the tip of her bill. Then with the other foot she would do the other side. This continued some two or three minutes, when the male flew up and they darted away together. I was so very close that I could distinctly see the whole interesting performance.—GEO. L. MOXLEY, *Los Angeles, Cal.*

Bird Notes From Chicago

CARDINAL.—A pair of Cardinals in Sheridan Park built a nest in the latter part of May, but the young were killed by our noted lake breeze soon after they hatched. Last year, Cardinals were very common in this vicinity. There was one pair in Sheridan Park and one in Argyle Park. On one day I also saw two more pairs at the Desplaines River, west of Dunning, while I think there were five or six at Riverside. There are still three or four at Riverside, owing to the protection given them, but the others, I fear, have been killed by boys and gunners.

TUFTED TITMOUSE.—On February 8, I saw five Tufted Titmice at Riverside. They were quite tame and we watched them for some time. On April 11, I again saw three at the same place, the last record of them that I know of. They were seen between these two dates several times by other members of the E. W. Nelson Society.

ROBIN.—Frank C. Gates and William Gerberding, individually, saw a Robin in Graceland Cemetery on January 1, and I saw two at the same time on January 20.

SONG SPARROW.—On January 18; Dr. H. S. Pepoon and I saw three Song Sparrows near Bowmanville. Song Sparrows never wintered with us before, to our knowledge.

PRAIRIE HEN.—April 12, Dr. H. S.

Pepoon and I saw a flock of about twenty within a mile of the city limits, where, I dare not say, for fear some gunner will get word of it. They seemed to be in a wild state, but they may have been introduced, for all I know.

CHICKADEES.—Chickadees have been remarkably scarce here this year. Glencoe, Millers (Ind.), Willow Springs and Half Day have been the only places I have found them.—**NEWTON L. PARTRIDGE, Chicago, Ill.**



A FLICKER'S NEST SITE

A Flicker's Home

"Shooting on these premises is strictly prohibited under penalty of the law." A wise Demarest (N. J.) Flicker has selected a home which is at this date (June 8) occupied, and which bears the above

legend in lieu of a name-plate on the door. Such seeming sagacity should be rewarded by success in the rearing of a large and happy family.—**B. S. BOWDISH, Demarest, N. J.**

Two Sparrow Episodes

A friend in this town, who is a close observer of birds and is thoroughly reliable, has just told me the following incidents. A Robin was gathering angleworms in the lawn, and had filled her bill with a fine bunch of them for her little ones in the nest near at hand. Several English Sparrows were hopping about close to her, evidently intent on trickery. As the Robin lifted her head and was getting ready to fly, one Sparrow at her right, and another in front, were chirping and threatening in a way to divert her attention; then, just at the right moment, a third Sparrow darted up to her from the right side and a little in the rear and nabbed the bunch of worms, pulling them all from her beak. Poor Madam Robin stood looking puzzled, as if she scarcely knew what had happened.

My informant also says that the Purple Martins, as a rule, seem to be quiet and peaceably inclined just as long as the English Sparrows keep their distance. But more than once he has seen one of the Martins turn like a flash on a Sparrow that was getting too bold and coming too near, seize it by the feathers of the nape, give it a twist and a snap, and send it whirling to the ground. This will help to explain how the Martins manage to hold their own against the Sparrow clans.—**LEANDER S. KEYSER, Canal Dover, Ohio.**

A Correction

The notice of a Prothonotary Warbler in Central Park, in the June number of **BIRD-LORE** gave, by my mistake, the date of identification as May 8, instead of May 4. The bird was not seen after May 5.—**ANNE A. CROLIUS, New York City.**

Book News and Reviews

PRELIMINARY REPORT OF AN INVESTIGATION ON THE SEASONAL CHANGES OF COLOR IN BIRDS. By C. WILLIAM BEEBE, American Naturalist, XLII, 1908, pp. 34-38.

In continuing his important and novel studies of the causes affecting the colors of birds, Mr. Beebe gave himself this interesting problem, "What is the cause of, or what factors determine, the seasonal change in the males of the Scarlet Tanager and the Bobolink?"

To give Mr. Beebe's answer would be to reprint his paper, which, as a preliminary report, is largely an abstract of his experiments. Briefly, male Scarlet Tanagers and male Bobolinks in full plumage and in full song were confined in cages where the supply of light was gradually diminished and the amount of food gradually increased. The birds began at once to gain in weight, and to lose in activity, and shortly to discontinue singing, and when the time for the fall molt arrived not a feather was shed.

"From time to time a bird was gradually brought into the light for a week or two and meal-worms were added to its diet. This invariably resulted in a full resumption of song. Even in the middle of winter a Tanager or a Bobolink would make the room ring with its spring notes, and with this phenomenon was correlated a slight decrease in weight."

Early the following spring Tanagers and Bobolinks which were gradually brought under normal conditions molted as wild birds of the same species do, into spring breeding plumage. Wild Scarlet Tanagers, however, change at this season from olive to scarlet, and male Bobolinks exchange a plumage resembling that of the female to the familiar black, white and buff. With Mr. Beebe's birds, however, the fall molt having been suppressed, the change in the Tanager was from scarlet and black to scarlet and black, and in the Bobolink from black, white and buff to black, white and buff.

Mr. Beebe's experiments are still in progress and for the present he attempts to make no attempt to explain the significance of the results already achieved.—F. M. C.

DESTRUCTION OF THE COTTON BOLL-WEEVIL BY BIRDS IN WINTER. By ARTHUR H. HOWELL. Circular No. 64, Bureau of Biological Survey, United States Department of Agriculture.

Mr Howell's investigations have raised the number of species of birds known to feed on the cotton-boll weevil from twenty to fifty-three. Of these, thirty species prey upon the weevil during the winter, when, Mr. Howell remarks, it is far more important to kill them than in summer, since their death at this season "prevents the production of a very numerous progeny during the early summer. Brewer's, Rusty and Red-winged Blackbirds, Meadowlarks, Savanna, Vesper, Field, Swamp, White-throated and Fox Sparrows, American Pipits, Carolina, Bewick and Winter Wrens, Tufted Titmice and Carolina Chickadees are among the more important winter-bird enemies of the weevil.—F. M. C.

CASSINIA: PROCEEDS DELAWARE VALLEY ORNITHOLOGIST'S CLUB, XI, 1907, 8vo. 98 pages, 4 half-tones.

'Cassinia' for 1907 opens with one of Witmer Stone's admirable biographical sketches of America's early ornithologists, the subject being Adolphus L. Heermann, whom we know chiefly through the two birds which were named for him—Heermann's Song Sparrow and Heermann's Gull. Mr. Stone's remark that the practice of naming animals and plants after collectors and students is justified by the perpetuation of the memory of men who might otherwise be forgotten, meets with our hearty approval. It is the naming of species after men who are not even remotely connected with or interested in scientific pursuits that has brought this practice into disrepute.

Other papers in this number relate more directly to the region to which the club devotes its special attention; Cornelius Weygandt writing of 'Some Birds of Brown's Mills, N. J., Spencer Trotter on 'Type Birds of Eastern Pennsylvania and New Jersey,' Charles J. Pennöck on 'Bird-life of the Indian River Country of Delaware,' and Chreswell J. Hunt, presents 'A Pensauken Diary.'

Members of the club at forty-three different localities contribute data on the spring migration of 1907, which are compiled by Mr. Stone in the usual valuable annual report of this subject.

The abstract of the proceedings at Club meetings shows that from January 3, to December 19, 1907, sixteen meetings were held with an average attendance of twenty-three members; the number ranging from fifteen to thirty-five. Judged by this record the D. V. O. C. continues to be the most active local ornithological society in this country.—F. M. C.

LIST OF THE BIRDS OF THE NEW HAVEN REGION. Compiled by a Committee of Freeman F. Burr, Chairman, Philip L. Buttrick, Alfred W. Honywill, Jr., Dwight B. Pangburn, Aretas A. Saunders, Clifford H. Pangburn. Advisory Committee, Louis B. Bishop. Bulletin No. 1 New Haven Bird Club, May, 1908. 8vo. 32 pages.

This list is a good example of the results of coöperative bird study. Various members of the committee describe the more favorable places for birds and bird students about New Haven and then give us a briefly annotated list of 217 species of birds "that can be seen during any year in the immediate vicinity of New Haven." This list is based mainly on the observations of the members of the committee, and being designed to represent the present status of the species treated, should be of practical value to bird students in the region covered. A nominal list of rare or extirpated species is appended. Without in any way reflecting on the accuracy of the work of the members of the committee, we congratulate them on their good judgment in securing the coöperation of their

fellow-townsmen as an Advisory Committee.—F. M. C.

A CATALOGUE OF THE BIRDS OF PRINCE EDWARD ISLAND. By JOHN MACSWAIN, Proc. and Trans., Nova Scotian Institute, xi, pp. 570-592.

This list is based mainly on the field work of its author from 1895 to 1907, during which time he has identified 203 species of birds.

Under the head of "Species Reported by Other Writers," 13 species are added from Macoun's 'Catalogue of Canadian Birds,' and four from Bain's "Birds of Prince Edward Island." While it might destroy the record of personal achievement, it would add greatly to the reference value of the list if these 17 additional species had been included in it. Mr. MacSwain does not appear to be familiar with Dwight's 'Summer Birds of Prince Edward Island' (The Auk, X, 1893, pp. 1-15), a list of 80 species, seven of which are not contained in the body of his paper, but are included in quotations from other authors.

It is hoped that the edition of reprints of Mr. MacSwain's paper is large enough to supply local students with this useful check-list.—F. M. C.

The Ornithological Magazines

JOURNAL OF THE MAINE ORNITHOLOGICAL SOCIETY.—The June, 1907, number of this 'Journal' opens with a brief history of the society, followed by an account of the Redstart from O. W. Knight's, 'Birds of Maine,' the 1906 migration report and numerous local notes. In the September number W. H. Brownson describes a visit to a colony of Laughing Gulls near Bristol, Maine, and also reports on the great Common Tern colony on Bluff Island. The autumn migration report of 1906 and the usual local notes complete the number. For December we have 'Observations on the Nesting and Feeding of the Loon,' by Dr. W. C. Kendall, 'The Wood Duck and its Danger,' by A. H. Norton, 'Scarcity of the Ruffed Grouse,'

by Walter H. Rich, and some interesting extracts from the journals of Mr. Geo. A. Boardman.

The March, 1908, number is largely devoted to Christmas bird lists and the proceedings of the annual meeting of the society held at Portland, November 29-30, 1907, marking the twelfth year of the existence of this flourishing organization, while there is also an account of a Bank Swallow colony, by H. H. Cleaves, illustrated by a plate. In the June number O. W. Knight discusses the Faunal Areas of Maine, P. B. Rolfe writes of 'Fish Hawks Forty Years Ago,' and W. H. Brownson contributes extended migration notes from Cape Elizabeth, Maine, for May, 1908. There is also a portrait and obituary notice of Prof. Leslie A. Lee, late president of the society.—W. S.

WILSON BULLETIN.—In the September number of the 'Bulletin,' Taverner and Swales continue their valuable 'Birds of Point Pelee.' F. L. Burns reprints the preface to the fourth volume of Wilson's Ornithology, containing his list of birds breeding at Bartram's Garden in 1811, and compares it with his own list at Berwyn, not many miles away. Lynd Jones discusses the spring migration of 1907, and presents some additional lists of 'Birds from a Car Window.' A briefly annotated list of birds of western Lyman county, South Dakota, by A. Larson, completes the number.

For December, Lynd Jones has an illustrated paper on 'June Birds of the Washington Coast,' while there is a large installment of the Point Pelee list, and papers by J. H. Fleming on 'Birds of Hawkins County, Tennessee' and by F. L. Burns on 'The Ruffed Grouse in Pennsylvania.'

The March, 1908, number comes to hand with a new cover representing Wilson's Warbler, while the main article is by F. L. Burns, discussing at length the so-called Wilson-Audubon Controversy.

Lynd Jones continues his 'Birds of the Washington Coast,' and John F. Ferry presents a detailed study of the phenomenal spring migration of 1907, as observed

in the vicinity of Chicago. Other papers are on 'A Migration Flight of Purple Martins in Michigan in the Summer of 1905,' by Frank Smith, 'The Acquaintance of Individual Birds,' by W. E. Sanders, and 'Summer Birds of Lake Geneva, Wis.,' by B. H. Wilson.—W. S.

Book News

THE Annual Report of the Superintendent of the Yellowstone Park for 1907 contains (pages 15-23) "Notes on the Summer Birds" of the Park, by T. S. Palmer, in which seventy-four species are listed, largely as a result of observations made from August 7 to 21, and September 9 to 14, 1908.

NUMBER three of Volume I of the ornithological publications of the Field Museum is a 'Catalogue of a Collection of Birds from Guatemala,' by Ned Dearborn. The paper is based mainly on Dr. Dearborn's work in Guatemala from January 4 to April 15, 1906, and contains notes on 305 species of birds.

DEWOLFE & FISKE Co., of Boston, announce the publication in two volumes, the first of which is ready, of a work on the Birds of Guiana, by Frederick Paul Penard and Arthur Philip Penard. The work, which is written in Dutch, treats of about 1,000 species.

In 'The Century' for June, Gerald H. Thayer presents an article entitled 'The Concealing Coloration of Animals,' in which we have a concise general statement of the discoveries of Abbott H. Thayer in regard to this subject. We understand that the Macmillan Company has in press a volume in which Mr. Thayer's work is fully elaborated, but, while awaiting its appearance, the 'Century' article should be read as an introduction to a book which is certain to arouse much interest among students of animal life. July 10, Mr. Thayer demonstrated some of the results of his studies before the Biological Laboratory at Woods Hole.

Bird-Lore

A Bi-monthly Magazine

Devoted to the Study and Protection of Birds
OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Edited by FRANK M. CHAPMAN

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Bird-Lore's Motto:

A Bird in the Bush is Worth Two in the Hand

WHAT an overwhelming catastrophe was the introduction into America of the House Sparrow! Its harsh, insistent, incessant chirp is now the dominant bird voice about our homes, where we may never again hope to hear a chorus of native bird music unmarred by the discordant chatter of this pest. It is as though some foul odor had forever defiled the fragrance of our fields and woods.

THE contents of the June issue of the National Geographic Magazine demonstrates convincingly the value of the camera to the sportsman as a substitute for the rifle, and its importance to the naturalist as an aid in recording observations in tangible form.

Virtually the entire number is given to an article by the Hon. George Shiras, 3d, entitled 'One Season's Game-Bag with the Camera.' To be exact, for "Season's" we should substitute Year's, since the work of several seasons is here included; but, even with this amendment, the contents of the game bag is sufficiently remarkable, especially when we learn that it represents only the best specimens of the hunter's skill. Here are photographs of the Booby, Man-o'-War Bird, Sapsucker, Florida Screech Owl, Canada Jay, Brown Pelican, Florida Bob-white, Catbird, and Thrasher, the moose, caribou, Virginia deer, timber wolf, weasel, mink, and gray squirrel,—all of which show the animal in its haunts and tell more or less

of its habits, while the accompanying text, which is far more interesting as a narrative than the simpler story of the man with the gun, contains also much valuable biographical matter.

In New Brunswick Mr. Shiras employed a famous guide, who for over forty years had hunted with the rifle; but, after his experience as an assistant in camera hunting, he said: "In my varied experience and with many scenes before me, I can only say in all sincerity that the hunt of the past week has proved more interesting, more exciting, and of more real value in the study of animal life than all that has gone before." Such a tribute from a naturalist would not be surprising, but that a professional hunter should so quickly yield to the fascination of camera hunting is eloquent evidence of the camera's inherent superiority over the gun for the sportsman as well as the scientist.

Mr. Shiras's story is illustrated by seventy photographs, selected from 250 taken between April 9, 1907, and April 1, 1908. It is perhaps needless to add that among them one looks in vain for a picture of the author standing proudly behind a string of dead birds, or beside a hung deer carcass.

A WORK now appearing in England comes nearer to the ideal presentation of a bird's biography than any with which we are familiar. It is entitled 'The British Warblers,' and is by H. Eliot Howard (R. H. Porter, publisher, 7 Princes street, Cavendish Square, London). The author has devoted years to the study in life of the subjects of his monograph and the results show what may be accomplished by specialization and continuous, definitely directed observation.

WHEN this number of BIRD-LORE reaches its readers, the southward migration of birds will already be under way; but how many of us will know anything about it? Show us a bird student with a journal well filled with August notes, and we will show you an ornithologist who was born, not made.



TREE SWALLOW

Order — PASSERES
Genus — IRIDOPROCNE

Family — HIRUNDINIDÆ
Species — BICOLOR

THE TREE SWALLOW

By MABEL OSGOOD WRIGHT

The National Association of Audubon Societies

EDUCATIONAL LEAFLET NO. 33

"She is here, she is here, the Swallow!
Fair seasons bringing, fair years to follow!
Her belly is white,
Her back black as night."

—Greek Swallow Song. J. A. Symonds, Trans.

This bird, known also as the White-bellied Swallow, may be easily distinguished from his brethren by his dark back, lustrous with glints of metallic blue and green, and his pure white under-parts that extend quite up to the bill; a white marking so precise that the dark head marking, at a short distance, looks like a cap pulled low. The tail is bluntly forked, while the sharp-pointed wings exceed it in length,—this being very noticeable when the bird is at rest upon the wayside telegraph wires—his favorite post of vantage.

If the sight of the Barn Swallow arranging his stucco-work home on the rafters is one of the signs of coming summer in the real country, so the April return of the Tree Swallow is one of the first authentic signs of spring; for, being an insect eater, it cannot live until winged insect life abounds. The Phœbe, also a feeder upon winged insects, comes in March, it is true, but locating as it does about barnyards and outbuildings, where manure is stored, it is more sure of its food-supply than the Tree Swallow, who naturally belongs to the remoter region of wooded pond edges, where the frost lingers.

Time was when the Tree Swallow was evenly distributed through its range, which extends in the northeast as far as Alaska, and could be found nesting in the major part of it, but now it has become much localized as a summer resident, on account of the difficulty of finding suitable nesting places. Like the Bluebirds and Woodpeckers, this Swallow's natural home

His Home is a tree-hole, and, as land comes under cultivation, the hollow trees quickly disappear, except in swampy regions where the inaccessibility as well as the half-rotten condition of the timber has saved it.

In many places, the Tree Swallow, like the Purple Martin, will adapt itself to a bird-box, artificial hollow in a post, or even a hollow gourd, such as may be found in the south, suspended for the Martins. But, unlike this latter bird, or the Barn Swallow, the Tree Swallow does not seem to be gregarious, to any great extent, in the nesting season. The coming of the English Sparrow has been as disastrous to the semi-domesticated Tree Swallow as to the Martins and Bluebirds; so that those who clung to their old haunts and adapted them-

selves to new conditions have been obliged to shift ground, and hereabout I have only known of one pair nesting during the past five years.

The nest, or rather hole-lining, is made of dried grass and a few feathers, put together without the plaster used by the Barn Swallow, and the half-dozen eggs are paper-white like those of the Woodpeckers. This total absence of color in the eggs of some notable tree trunk nesters is one of the arguments used by the holders of the color-protection theory,—being in a hole the eggs do not need the protection of color to conceal them.

The Tree Swallow is a notable insect-eater and has many attractive domestic habits; it is not in the nesting season, but in the long period of the fall migration, that we are the most familiar with it. Indeed, this event, spread as it is from July to late October, is one of the great spectacular features of bird life; for, though the large flocks are made up of both Barn and Bank and Cliff Swallows, the Tree Swallows are greatly in the majority.

By day, these Swallows skim over the meadows and country at large with a wide circling flight, easy to distinguish from the more angular course of the Barn Swallow. Toward night, they gather either in the marsh reeds or in the low bushes of some region of ponds, or the back-water of rivers, where they roost, coming forth again in clouds at dawn.

This fact, that during the migration Swallows invariably roost near water, gave rise to the absurd old idea that they dive into the water and spend the winter in the muddy bottom in a state of hibernation. From roosting in the bushes on the sandy bars above marshes and along creeks where the bayberry (*Myrica cerifera*) is common, the Tree Swallow, kept in cover by storms, was doubtless driven by necessity to feed upon the waxy bayberries; for certain it is that this berry is the one exception to its insectivorous diet. Miss Lemmon has told in BIRD-LORE of one of these flockings at Englewood, N. J.:

“On October 3, 1899, my attention was called to a huge flock of Tree Swallows about a quarter of a mile from my home. These birds are abundant here from July to October, but on this occasion at least 2,000—estimating from photographs and from the counting of the live birds—were collected on the telegraph wires and in the adjoining fields, and not a single specimen of

Manoeuvres any other species could be found in the flock.

“On the wires were hundreds at a time, crowded together between three poles; they seemed to have lost their usual fear of man, remaining even when carriages went under them, and not always starting up when the wires were struck by a stone—a temptation to throw which the passing small boys found it impossible to resist.

“Beside the road is a small brook with two or three exposed pools, and here was a great oval whirl of birds, all going in the same direction, each in passing dipping for a drink, then rising to re-take its place in the line. Now and then some returned to the wires or others joined the drinkers, but the numbers were so great that a collision seemed unavoidable.

"A large part of the flock had settled in a pasture some distance away, in so close a group that they made a spot of blue on the short grass. Crossing over to these I found them quietly enjoying the sunlight, and, as I approached from the southwest, all had their backs toward me, showing to perfection the beautiful steel-blue of the feathers. Most of the time they were still, though now and then one undertook to walk a few inches, if, indeed, such a ridiculous hobble could be called a walk. But forty feet was near enough for a person—then those nearest me rose, and, passing over the others, alighted in front of them, and so they moved regularly on before me.

"Some of this portion of the flock were on a wire fence near at hand; a very small proportion, though over one hundred, were on a single wire between five posts, and these were so fearless that when the last one flew I was but two steps away.

"Four or five times during an hour and a half the birds on the telegraph wires rose in a body, with those drinking at the brook, while the flock from the pasture hurriedly crossed the intervening fields to join them. For a moment the very air seemed full of Swallows; then, rising higher, they separated into smaller flocks, turning back and forth, meeting again, describing curious figures as smoothly and easily as if going through a long-practiced drill. After a few minutes, they either returned, a few at a time, to their former perches or gradually scattered over the fields and woods, and in a little while came streaming back, a long river of Swallows, to alight once more.

"As the morning advanced their numbers gradually diminished, and at 3 P. M. about thirty remained. For three or four days after that these Swallows were present in great numbers, continuing their drill, after which I noticed no more than usual."

The Tree Swallow not only comes earlier and stays longer with us than any one of the clan, but it is the only one of the family to winter in the United States, from South Carolina and southern California to the tropics. By its hardihood, it is exposed to the danger of starvation when a sudden drop in the temperature not only impairs its vitality but cuts off its food supply. Of one of these tragic incidents Mrs. Slosson tells us,—for with these seeming careless birds of passage, as with ourselves, it is not always either summer or good living.

"The cold wave reached us at Miami, on Biscayne Bay, Florida, in the night of February 12, 1899. It was preceded by severe thunder storms in the evening. On the 13, Monday, it was very cold all over the state, with snow and sleet as far south as Ormond and Titusville. Our thermometers at Miami ranged from 36° to 40° during the day. As I sat in my room at the hotel, about four in the afternoon, I saw a bird outside my window, then another and another, and soon the air seemed full of wings.

"Opening my window to see what the visitors could be, I found they were Tree Swallows. Several flew into my room, others clustered on the window-ledge, huddling closely together for warmth. There were hundreds of them about

the house seeking shelter and warmth. They crept in behind the window blinds, came into open windows, huddled together by dozens on cornices and sills. They were quite fearless; once I held my hand outside and two of them lighted on its palm and sat there quietly. As it grew dark and colder their numbers increased. They flew about the halls and perched in corners, and the whole house was alive with them. Few of the guests in the hotel knew what they were; some even called them 'bats,' and were afraid they might fly into their faces or become entangled in their hair. One man informed those about him that they were Humming Birds, 'the large kind, you know,' but all were full of sympathy for the beautiful little creatures, out in the cold and darkness. A few were taken indoors and sheltered through the night, but 'what were these among so many?'

"The next morning the sun shone brightly though the weather was still very cold—the mercury had fallen below 30° during the night. But as I raised the shade of one of my eastern windows I saw a half-dozen of the Swallows sitting upon the ledge in the sunshine, while the air seemed again filled with flashing wings. I was so relieved and glad. Surely the tiny creatures, with their tints of steely blue or shining green contrasting with the pure white of the under parts, were more hardy than I had feared. But alas! it was but a remnant that escaped. Hundreds were found dead. Men were sent out with baskets to gather the limp little bodies from piazzas, window ledges and copings. It was a pitiful sight for St. Valentine Day, when, as the old song has it, 'The birds are all choosing their mates.' "

Questions for Students and Teachers

When does the Tree Swallow reach your vicinity in the spring? Does it remain during the summer? If not, when does it return in the fall. When is it last seen? What is the range of the Tree Swallow? On what does it feed? What is the character of its nest? Describe its eggs. What other Swallows are found in North America?

The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by WILLIAM DUTCHER

Address all correspondence, and send all remittances for dues and contributions, to the National Association of Audubon Societies, 141 Broadway, New York City

Important Notice

Many of the members of the National Association write that they receive two copies of BIRD-LORE. The reason for this is that BIRD-LORE, as the organ of the Association, is mailed to all members of the Association, and they probably overlook this fact and subscribe to the magazine in addition to joining the Association. Members will please bear in mind that so long as their annual dues of \$5 are paid BIRD-LORE will be sent to them without any further payment on their part. If extra copies of BIRD-LORE are desired by members, they can be secured of the publishers.

Legislation

MASSACHUSETTS.—This state has failed to shorten the open season for wild fowl and shore birds, as House Bill 507, which was drawn for the purpose, was finally referred to the next session of the legislature.

Two additional acts were passed, however, which will in time establish refuges or reservations for forest birds. The first was an act to provide for the purchase of forest lands and reforestation. It was introduced and ably championed by Senator Treadway. It was advocated by the agent of the National Association, but its final passage was largely owing to the earnest and efficient work of Representative Gates of Westboro, who has been active in all good bird and game legislation. It empowers the State Forester to purchase land or accept donations of land in any part of the state, appropriates \$5,000 and carries an annual appropriation of \$10,000, beginning in 1909. This

bill will ensure a considerable number of small forest reservations which will be added to year by year.

A bill establishing a county reservation on Mount Everett, in Berkshire, was finally passed through the efforts of Senator Treadway. Thus far all forest reservations in Massachusetts have been so managed as to furnish protection to all desirable animals that inhabit them, and this policy will undoubtedly be carried out, eventually, in all reservations.—E. H. F.

RHODE ISLAND.—The net result of the legislation of the year in Rhode Island, so far as bird protection is concerned, consisted in the passage of a bill prohibiting the killing of shore birds from January 1 to August 1, and another making an increased appropriation for the use of the bird commissioners. This is a great advance when it is considered that shore birds previously had no protection whatever in the state and that heretofore it has been impossible to get an increased appropriation.

The bill providing a close season for upland game passed both houses by a large majority, but, on the last day of the session, it was referred to a Senate Committee for concurrence in a house amendment and the committee failed to report it back.

The Rhode Island Audubon Society took an active part in legislative work. Very effective assistance was rendered by the former Secretary, Mrs. H. T. Grant, as well as by the present Secretary, Miss Alice W. Wilcox.—E. H. F.

LOUISIANA.—The session of the legislature in this state has just closed and it

was a particularly brisk one, so far as the Audubon interests were concerned. Owing to the activity of the Louisiana Audubon Society in preventing the sale of the plumage of wild birds, especially that of White Herons, the New Orleans milliners combined and introduced through Senator Louque, former attorney for one of the millinery firms, Bill No. 110, which was intended to repeal that part of the Model Law which prohibited the sale of the plumage of birds or parts thereof whether taken within or without the state. The hearing on this bill, at which five members of New Orleans dry goods firms were present, occupied nearly two hours, but the milliners were unable to make out a case and the committee having the bill in charge voted against its progressing any further. The chief spokesman for the milliners tried to cloud the issue by referring to the possibility of confusing exotic plumage with that of species found in Louisiana. On the other hand, President Miller, of the State Audubon Society, and Mr. Kopman, field agent of this Association, kept prominently before the committee that it was necessary to forbid the sale of plumage of all birds whether exotic or local, in order to protect local birds. Preventing the repeal of the Model Law was a great victory and cannot fail to have its effect in other parts of the country.

President Miller has been advocating for many months, and by his educational work had gradually prepared the way for the passage of two bills, which, after a strenuous fight, are now laws and place the state of Louisiana among the leaders so far as good bird and game legislation is concerned. The bills were introduced in the House by Representative Ventress and were known as Numbers 82 and 83.

Bill No. 82 was to establish a Board of Commissioners for the protection of birds and game and fish, defining their duties and empowering them to employ game and fish wardens and to provide the means to carry this into effect. The legislature of Louisiana, through this bill, has done a great deal to protect one of the

state's most valuable assets, for no matter how excellent the game laws of a commonwealth may be, if there is no one to see that the laws are enforced, they are practically valueless.

Bill No. 83 provides for hunters' licenses, resident, non-resident, and alien, and also fixes the open seasons. This is one of the greatest advances ever made in bird and game legislation in Louisiana, especially as it removes Robins and Cedar-birds from the game list. At one time it was not thought possible that this could be done, but, owing to the splendid educational work referred to above, this radical measure was passed, only by a bare majority, however.

The Louisiana Audubon Society was organized in 1904. Mr. Frank M. Miller was elected President and has remained in that important position up to the present time. When he took charge of the work, he found a commonwealth with practically no bird or game laws of any kind and, in consequence, song and insectivorous birds were commonly sold in the markets. The birds of the coast had been almost exterminated, and, in addition, the state of Louisiana, furnished a very large part of the Cardinals and Mocking-birds that were exported from this country. In contrast, it is but justice to Mr. Miller to call attention to the present conditions in Louisiana which are almost entirely due to his splendid educational work and his activities in other lines. Louisiana now has some of the best game laws in force in the country, has a self-supporting Game Commission, has entirely prevented the export of live birds, has prohibited entirely the sale of wild birds' plumage, irrespective of where the plumage comes from, and has a greater number of Federal Bird Reservations than any other state in the country, and, in addition, owns or controls a large number of bird-breeding islands; in this latter respect, it is the banner state in the country.—W. D.

OKLAHOMA.—At the close of the first session of the legislature of the new state of Oklahoma, the Audubon Societies

found that they had been defeated. Very early in the session of the legislature a combination bill was introduced contrary to the advice of this Association, which very strongly urged that the Model Law be introduced as one bill and a game law be introduced as a second bill. Unfortunately our advice was not taken and, as a result, the Model Law was defeated, owing to the fight over the fish and game portion of the bill. Probably there was a further reason why the bill was not passed, in that the National Association did not feel that it could afford to send an expert representative to the legislature in order to present to the legislators the importance of a statute to protect the birds and game of the state; but, owing to the condition of the finances of the National Association, an appropriation for this purpose could not be made. One of the contributory causes that prevented the enactment of a bird and game law was that the sportsmen's organizations were mistakenly opposed to that portion of the bill referring to open seasons and, as they were organized, they flooded both the Senate and House with typewritten arguments especially criticising the open season for Quail and the bag limit, insisting that the season was too short and the bag limit too small.

A second cause was the heavy penalties provided in the bill against the oil producers for allowing oil from their wells to run into creeks and fish streams. A third cause was the provision prohibiting shooting on the Sabbath day, which was vehemently opposed by the sportsmen's organization. In addition to the above causes, the conditions existing in that portion of Oklahoma, which was formerly Indian Territory were so unlike those in the other portions of the state that it was hard to frame a law satisfactory to the two sections.

The leaders in both houses, after the first two months of the session, saw, or pretended to see, the absolute necessity of subordinating all minor subjects, and they seemed to regard the matter of bird and game protection as one of these, to the enactment of laws necessary to put the

provisions of the new state constitution in operation; and in this, again, the conditions in the two territories forming the state presented problems that called into activity the wisest thought and judgment of the legislature.

In the last four days of the session repeated conferences were held by the game committees of the two houses, but every effort to get the senate committee to agree to the house bill proved abortive, and the friends of the birds finally in sorrow and regret reluctantly gave up the fight.

Notwithstanding the fact that all bird and game legislation was finally defeated, yet there were a large number of senators and representatives who were very ardently in favor of the bills, and in this connection it is only proper to give the highest credit to General J. C. Jamison for the splendid work he did in advocating the bills although he was not a member of the legislature; much of the work he did was at the cost of serious physical discomfort.—W. D.

GEORGIA.—We now have before the legislature of this state a bill, almost a fac-simile of the Alabama law, which is one of the best in the country. It has passed one branch of the legislature already and it is hoped that it will become a law before the end of the session.

Secretary Pearson has already spent considerable time at Atlanta urging the passage of the bill, and early in July, by invitation, Commissioner John H. Wallace, Jr., of Alabama, addressed the legislature on the subject of game preservation, confining his remarks largely to the economic value of birds. At the conclusion of his remarks over half of the members of the House and Senate came forward and expressed themselves as being favorable to the bill. Commissioner Wallace went as the accredited representative of the National Association. The bill provides for the establishment of a game commission and also for the hunter's license feature, both being necessary in Georgia as elsewhere.

Reservation News

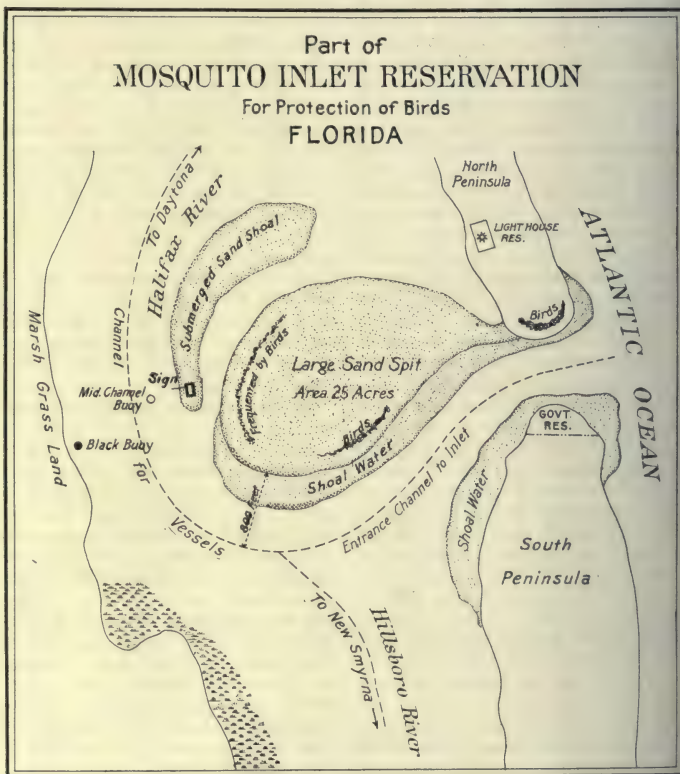
Mr. George N. Chamberlin writes concerning the Mosquito Inlet Reservation, the establishment of which was announced in BIRD-LORE for March-April, 1908 (p. 95), as follows:

MOSQUITO INLET RESERVATION.—“Before leaving Florida I called on Mr. D. D. Rogers, C. E., to ascertain the location of Township line 16, being the north line of the reservation, and was gratified to know that it is about 1,600 feet north of Port Orange Bridge, six miles north of the Lighthouse, taking in a small island

close to the northern limit known as Pelican Island, Halifax River, the nesting place for hundreds of Blue Herons. The approximate length of the reservation from north to south is nearly thirteen miles. The south line crossing the Hillsboro River about two miles south of Hawke's Park, Florida.”

PASSAGE KEY, FLORIDA.—Miss Eleanor P. Earle, one of our life members, writes as follows:

“When we were at Passage Key last Friday, there were four eggs in nearly all of the Skimmer's nests, and if not dis-



turbed they will soon have four of the sweetest little yellow-gray puff balls that you ever saw.

"A good many young Gulls are flying and we think by next month they all will be through nesting.

"The Little Blue Herons are just about beginning to hatch now; we have found eggs as late as July. The mangroves around the big pond must have become a little too crowded for the Louisiana Herons, for nearly half of them nested around the little pond, where the highest mangrove is hardly twelve feet. I wonder how the Red-wings and Grackles liked their new neighbors?

"Isn't it fine the way Great Blue and Ward's Herons have taken to Passage Key? The first year, 1906, there were only about six, and we don't know whether they nested or not; last year there were, after they had all hatched, about 130; this year nearly 400 on the Key. Of course, they may not all have nested but most of them did; I counted 78 nests. You understand that all the young raised are included in that 400.

"Passage Key is certainly beautiful now, but there's never a time when it is not, and there is one thing that we all wish all the time, and that is, for you to see it.

"We put up the new reservation notices on Passage Key, but have not gotten over to Indian Key yet; we think we may get there the last of next week. 'United States Bird Reservation' seems to make a great impression on everybody that reads it."

TORTUGAS, FLORIDA.—Prof. Alfred G. Mayer, who takes a deep interest in this reservation, writes as follows from the Marine Laboratory of the Carnegie Institution, on June 21:

"I am now happy to say that we have decidedly 'the upper hand' in the rat problem. The combination of azoa, strychnine, barium carbonate, cyanide of potassium and guillotine traps have rendered them rare both on Bird Key and on Loggerhead, so that the nesting Terns are now not appreciably interfered with.

"The *actual* number of rats on Bird Key appears not to have been more than 100-200. You know they breed every two months and often have ten young at a time.

"The Least Terns are having an unusual immunity on Loggerhead Key this season, and I have effectually checked the shooting and egg-eating propensities formerly indulged in by the lighthouse keepers.

"The Least Tern colony on Bush Key is larger than ever; there may be 1,000 birds there.

"Since I abolished shooting here the Herons and other transient visitors have become so tame that one may with care approach within ten feet of them; we have several on the island now.

"The lighthouse keeper desired to continue the shooting of Sharp-shinned Hawks, but I told him that *all birds* were protected. Undoubtedly every stray shot would have been at a 'Sharp-shinned Hawk.'

"Your man on Bird Key is an ardent rat-trapper and is doing well as a warden."

BATTLEDORE ISLAND, LA.—Through the courtesy of the National Association and of Mr. Frank M. Miller, President of the Louisiana Audubon Society, I was enabled to spend the first eleven days of June, 1908, on the Association patrol boat, 'Royal Tern,' on a cruise over the entire Breton Island Reservation, off the coast of Louisiana, and among all the islands owned or controlled by the Louisiana Audubon Society. In this brief general statement preliminary to a full report I have space only for some general remarks.

My main impression is of a vast area of shallow waters, low-lying islands of salt marsh, and outer sand-keys far to seaward, in all, hundreds of square miles, most of it teeming, sometimes swarming, with bird-life. I was too late to see the immense squadrons of wintering or migratory wild-fowl, which, after enjoying this peaceful haven of refuge where guns are outlawed, had departed for the far north. All but



ROYAL TERNS, BATTLEDORE ISLAND, LOUISIANA AUDUBON SOCIETY RESERVATION
Photographed by Herbert K. Job

the tag end of the shore-bird migration had also passed on, giving me only a few glimpses of lingering Dowitchers, Turnstones, Sanderlings, Yellow-legs, and Red-backed Sandpipers, and no sight of the hordes of Golden Plovers, the last flock having been seen by the warden the week before my visit. A few southern-breeding shore-birds—Wilson's Plovers, Oystercatchers and Willets—were all that remained after my first week.

But other hosts were there,—wonderful, spectacular. Everywhere could be heard the rattle of the ever-present Laughing Gull, which bred by scores, hundreds, or thousands, as the case might be, on nearly every one of the numerous islands of the reservation, and on many others not yet protected. This species was the most abundant and widely-distributed of all. With them were occasional small colonies of Forster's Terns, perhaps a couple of dozen nests in each group, built on areas of drift-weed washed up on the marsh. Many of the inner marshy islands had strips of low mangrove bushes or clumps of weeds, in which, or on the ground by them, nested great numbers of Louisiana Herons. Occasionally there were with them a few Black-crowned Night Herons, locally known as 'Grosbecs.' On just one island was a pitiful remnant of former great colonies of the superlative Snowy Heron. Luckily I was able to secure a splendid series of intimate photographic studies of the home life of this exquisite but unfortunate possessor of the damning (to all concerned) aigrette plumes. A flock of some two hundred of the larger American Egrets seen by Warden Sprinkle in April did not return to breed.

On certain of the outer sand keys are immense breeding areas of Royal and Cabot's Terns, of the wonders of which even the accompanying photograph can give but an imperfect impression, as compared with the actual sights and sounds. Gales and high tides are now a worse enemy of these birds than man. A few days preceding my visit, a high tide, in calm weather at that, obliterated an area of probably from 1,500 to 2,000 nests.

A few small colonies of the Caspian Tern were noted. The largest of these, with some 200 nests, had just lost all their eggs by raccoons. Save for a few Least Terns which one day flew by the vessel, I did not find the species on the reservation. No other Terns were noted than the above kinds.

Another abundant bird is the curious Black Skimmer, which lays in numerous groups of from a few dozen to a couple of hundred pairs just above high-water mark on the dry beaches of these outer keys. Brown Pelicans and Man-o'-war Birds had finished nesting, and, when not feeding, resorted to the outer keys and sandbars to rest, the latter by thousands, acres and acres of them.

The abundance of bird-life here begins to suggest what it must have been in these waters in the palmy days before greedy millinery interests and brainless fashion started in unholy alliance to exterminate the wild birds of America. Much of the credit for the present encouraging conditions on this part of the southern coast is due to Frank M. Miller, as leader and instigator, and to the backing of the members of the Louisiana Audubon Society, as well as to many of the members of the Louisiana legislature, who have been broad-minded enough to realize the value of this great work and to close their ears to the clamor of selfish interests. In Capt. William M. Sprinkle, the warden, whom I found a delightful companion, and whose thorough acquaintance with every foot of those five hundred square miles of shallows was my perpetual amazement, the Audubon Societies and the National Government have a most faithful and efficient ally in guarding this great reservation.—HERBERT K. JOB.

WILLOW ISLAND, CONN.—Willow Island, the new bird refuge recently leased by the National Association of Audubon Societies, is situated in the Connecticut river between Middletown and Portland, Connecticut, and contains a little more than thirty-three acres. It is about three-quarters of a mile long and an eighth of

a mile wide. Much of this island is heavily wooded, willow, cotton-wood and elm trees predominating. Many of the cotton woods (poplars) are stately trees, being from seventy to ninety feet high. The open portion of the island is covered with grass, and a dense growth of underbrush contributes to its picturesqueness.

used to think that the now restricted island was the best, and almost the only local place in which to study this interesting bird.

During the migrations the island is the stopping place of innumerable Warblers, Sparrows and other birds that move north and south through the Connecticut valley.



SOUTH END OF WILLOW ISLAND, NEAR PORTLAND, CONN.

Photographed by Miss Harriet Sage

Willow Island is a favorite nesting place for the Wilson's Thrush, or Veery, the Yellow Warbler, Baltimore Oriole, Rose-breasted Grosbeak, Scarlet Tanager, Redstart, Catbird, Maryland Yellow-throat, Song and Swamp Sparrows, and Spotted Sandpipers. In the early sixties, before the Rose-breasted Grosbeak was as common as at the present time, the writer

used to think that the now restricted island was the best, and almost the only local place in which to study this interesting bird.

During the migrations the island is the stopping place of innumerable Warblers, Sparrows and other birds that move north and south through the Connecticut valley.

Deer stop on the island but do not violate the state laws as there are no gardens to destroy.

Willow island is a 'station' for many rare plants, some of them no doubt being deposited there during the spring freshets.

This island is one of the most beautiful and attractive pieces of land in the Connecticut river, and with the present desire for the wanton destruction of timber it is a relief and comfort to know that one spot is saved from devastation.—
JOHN H. SAGE.

[The National Association has leased Willow Island for five years with the privilege of purchasing it for \$3,500.

Plans are now being made to raise this amount through a popular subscription in Connecticut, especially among the school children, in order to purchase this island and make it a bird refuge in perpetuity.

According to recent statistics, there are in the state 227,547 children of school age, and a contribution of less than two cents each would more than provide the necessary fund for the purchase of Willow island. What a grand thing it will be for the children of the State of Connecticut to purchase and make Willow Island a perpetual home and refuge for birds].

A NEW PARK AND BIRD REFUGE.—Mr. Walmsley, the president of the Missouri Audubon Society, is also secretary of the Kansas City Zoological Society. He sends the following brief description of the new park:

"In reply to your request for information as to our Zoological Park will say that it is located in one of our city parks of over 1,300 acres and known as Swope park. This park is full of wild life and the employees are already trapping wolves, foxes and other wild animals to be placed in the new Zoo. We have set aside sixty acres to be enclosed and on which to erect animal buildings for temporary quarters. The city has set aside \$15,000 and an additional \$10,000 is available for the purpose of erecting these buildings. They will be built of stone and cement

quarried within the park. Through this sixty acres runs a little creek fed by several springs. Along this creek on either side rise miniature rocky cliffs and it is the plan to hollow out these cliffs into dens with enclosures in front for such animals as live in rocky dens. A drive will pass over the tops of these dens and on either side of the creek in front of them so that all kinds of views can be had of the animals.

"The creek will be built into a series of cascades for about a thousand feet and in each basin will be placed aquatic animals, also plants and fish. To the west of this valley lies about 160 acres of level ground in which I hope in time to locate the Botanical Gardens. Through Swope Park and immediately bordering the sixty acres at present laid out, flows the Blue river, a beautiful little stream. Near the entrance at Swope Park, and immediately to the southwest of the sixty acres, is a stone building known as the shelter house which we hope to convert into a museum gathering therein all the private collections of this section; and here, the children can examine the mounted specimens and then go into the main park and become familiar with them in life.

"While we are only beginning in a small way we expect to have a Zoological Garden of which we can all be proud. Nature has certainly provided us with a location that could not be surpassed."

THE FARMINGTON MOUNTAIN RESERVATION.—Perhaps your readers may be interested to hear that the owners of the Farmington (Conn.) Mountains have agreed together to make the mountains a kind of Yellowstone Park reservation for all the wild life of the state; there is to be no hunting of any kind for ten years. And it is proposed to stock the reservation with the three or four game birds which have been exterminated. The Pinnated Grouse, the Wild Turkey, and, we might add, the Ruffed Grouse. The Farmington Mountains, which are really high trap-pledges, are a continuation of the Green Mountains, and if the whole range of mountains running through New England

(with its outlying spurs) could be made a complete reservation for wild life, we feel sure that it would be of practical benefit to this section of the country. Or, in other words, the same intelligence used in keeping a chicken-coop, applied to the mountains and wild game birds, might surprise us all.—ROBERT B. BRANDEGEE.

Bahama News

"Late in May I found that seabirds' eggs were for sale all about the streets of Nassau, cooked and uncooked for twelve cents a dozen. I was assured by some of the merchants that they were a great luxury and to test the truth bought and ate them. They are decidedly inferior to hens' eggs and about two-thirds the size: I suppose they are eaten on every habitable island of the Bahamas. I do not think there will be an opposition to an amendment of the present bird law or the insertion of a clause prohibiting the sale of or taking of eggs. This will have some effect, necessarily slight, however. When food-stuffs are dearer, many of them at a premium, and the people who gather the eggs can neither read nor write, you will perceive that improvement must be slow. It will call for much missionary effort among the eggers, literature for the better class, etc., to make any impression on the situation. The only way to better conditions is to educate the people; this I am trying to do single-handed. If I had a little pecuniary assistance, I could accomplish a great deal more.

"By the most fatiguing labor I have succeeded in starting a new and well organized movement for industrial education. Since March the Governor has had the articles of Association under consideration, and I hope to hear by next mail that the Columbus Institute is incorporated. On this institute almost everything depends, the lives of the birds in particular. People who are ignorant and suffering cannot be made to protect anything. This school will be a sort of monument to the achievement of Columbus and on this ground I appeal for aid.

"I am writing this letter hurriedly, that you may know how matters stand. I will give you any further information you may wish. I hope the American people will respond to this call."—ALICE M. BOYNTON.

Government Aid

Prior to the present year thousands of Seabirds' eggs were brought from the Bahamas to the Key West market by spongers, turtlers and fishermen. This matter was brought to the attention of the Secretary of the Treasury who directed the Customs Officials at Key West to stop the traffic, as explained by the following letter:

"Port of Key West, May 29, 1908.

"Acknowledging the receipt of your letter dated the 25th inst., I beg to say that acting under the instructions of the Honorable Secretary of the Treasury, steps have been taken to prevent the bringing into this district eggs of Seabirds from the Bahamas.—Very respectfully, RAMON ALVAREZ, *Special Deputy Collector.*"

The Plume Trade

"The second and third of the year's feather sales were held at the Commercial Sale Rooms on April 14 and June 10. On both occasions there was a numerous attendance of buyers, and 'a good demand' is reported. At the former there were 338 packages of 'Osprey,' chiefly East Indian and Rangoon, and 270 Impeyan Pheasants. Some 6,800 Birds-of-Paradise were catalogued. Among the notable features of the sale were the great number of Parrots (8,299 entered by one firm), chiefly Indian paroquets; the Kingfishers (8,920), the Victoria and Coronata Crowned Pigeons (1937 from one firm, 5,350 by another), and over 15,000 Sooty Terns, the last named having the trade name of 'Dominoes.' At the June sale 15,500 Sooty Terns were again catalogued. This no doubt means that some breeding places of the species have been raided and all the birds killed. A number of other species of Tern were also on sale. Kingfishers were

in large supply, selling at 3½d. to 3¼d. each. Impeyan Pheasants were 9s, 3d. each. Trogons 9d. to 2s. 7d., Orioles 1¼d., Tanagers 4¼d., Ruby Hummingbirds 1½d. Victoria and Coronata Pigeons were represented by over 8,000 heads and crests. There were 205 packages of 'Osprey,' mostly from Asia; and 6,190 Birds-of-Paradise." (From Bird Notes and News,' London).

The above ghastly list of nature's finest gems was sufficient reason for the introduction of "The Plumage Prohibition Bill" into the House of Lords by Lord Avebury on May 5. The important provision is: "Any person who, after January 1, 1909, shall import or bring into the United Kingdom for the purpose of sale or exchange the plumage, skin, or body, or any part of the plumage, skin, or body of any dead bird which is not included in the schedule of exemption to this Act shall be guilty of an offence, and shall, on summary conviction, be liable to a penalty of not exceeding £5, and for every subsequent offence to a penalty of not exceeding £25, and in every case the court shall order the forfeiture and destruction of the articles in respect of which the offence has been committed."

The birds exempted in the schedule are "Ostriches, Eider Ducks and wild birds used as an article of diet." Names of foreign wild birds may be added or removed from the schedule by consent of the Privy Council. Lord Avebury said the Bill was introduced at the request of the Zoological Society of London, the Linnæan Society of London, the Selborne Society and the Royal Society for the Protection of Birds; further the bill had the support of the naturalists of the country, and especially of all lovers of birds. The bill has been most cordially and sympathetically received by the press.

The Manchester (Eng.) Guardian says: "The wail of the wholesale feather trade, which is beginning to be heard since the welcome to Lord Avebury's Importation of Plumage Bill, gives one unintentionally an excellent piece of news. For it is an item of their gloom that nearly all the raw

skins and plumage used throughout the Continent come into the London market in the first instance.

"Of course, it is possible that foreign countries would obtain their supplies direct, but at least if the Bill passes, the deplorable trade would be so disorganized that it might never return to the present appalling statistics of slaughter."

The millinery trade is evidently greatly stirred up over Lord Avebury's Bill or they would not publish such a foolish statement regarding aigrettes as follows: "In regard to aigrettes, the people who collect these are not so foolish as to kill the goose that lays the golden egg, and in Venezuela, which produces the biggest lot of aigrettes, not one bird is killed, but the feather is picked up at certain seasons of the year when the bird casts its feathers."

This ancient but untruthful story has been shown up so often that it is fast becoming a joke. Why won't the millinery trade frankly acknowledge what they know to be true, that in order to obtain the plumes known as 'aigrettes' White Herons have to be killed while the plumes are in good condition. Why won't the milliners be honest and acknowledge that when the parent birds are killed the helpless nestlings must die of starvation.

Will the milliners please explain why there are no White Herons left in Florida now, while a score of years ago they could be found there in countless numbers? If "the feather plume is picked up at certain seasons of the year when the bird casts its feathers," why should the White Herons have disappeared? The Paris letter in The Millinery Trade Review (New York) for July says: "Black and white aigrette dyed in bright light shades is very much in it too, the favorite tints being rose-pink, maize, brown-yellow, apricot, old rose and steel-gray. Birds continue in considerable favor, Birds-of-Paradise taking first rank, white and brown Cockatoos and White Owls and Macaws coming next." It is evident that the millinery trade do not intend to abandon the use of the plumage of wild birds except so far as they are compelled to do

so by drastic laws, and it is therefore high time that laws similar to the Avebury Bill shall be enacted by all the civilized nations. An international convention should be held at an early date to urge such legislation or it will be too late to save many species of valuable and interesting birds from extermination.—W. D.

A Pleasant Letter

No letters ever reach the office of the Association that give greater pleasure than those received from young people, who not only give their sympathy and support to the work of bird protection but show from their letters that they are keen and intelligent observers of bird-life. The following is one of the best letters of this character that has ever been received.

"I wish to become a member of the Audubon Society. Enclosed please find five dollars dues. I am eleven years old and am very interested in birds. I have enjoyed BIRD-LORE very much for two years. I was much interested in reading about the Frigate Birds in the South Seas. We have made two voyages to the South Seas but I never heard of these birds being used like the Homing Pigeon. The story of the Petrel also gave me pleasure, as I saw many Albatrosses when we went around the Cape of Good Hope to New Zealand. I have asked several friends to join the Audubon Society.—Yours sincerely, HELEN GORDON CAMPBELL."

In Memoriam

Mrs. Emma F. Bush, a member of this Association, died December 7, 1907. Though a partial cripple she took up the study of birds about six years since and by her own unaided efforts made great progress. She gave bird talks to the local Audubon Society of which she was a prominent member. Mr. Bush writes: "Second to the work of forest preservation, comes to my mind the work of the Audubon Society. I send you my check for \$10, and shall be pleased to send you

at least this much each year as a continual contribution from Mrs. Bush."

Announcement

The Rev. Herbert K. Job, owing to the increasing public demands upon his time, and at the advice of his associates in the ministry, is shortly to try the experiment of devoting his time to writing and lecturing. Concluding a ten-years' ministry in Kent, Connecticut, the last of next October, he will locate in the suburbs of New Haven. He has accepted a position with The Outing Magazine, and, beginning with the January number, that periodical will publish his illustrated articles, written from the standpoint of the popularizing of bird study and of bird protection, thus making itself a useful ally of the Audubon Societies. Mr. Job is open to engagements for bird lectures during the coming season, and may be addressed for the present at Kent, but after November 1, at 291 Main St., West Haven, Conn.

Women's Clubs

Mrs. May Riley Smith, of this city, attended the biennial meeting of the General Federation of Women's Clubs, which was held at Symphony hall, in Boston, the week of June 23, as the representative of the National Association of Audubon Societies, to present a paper on bird protection.

"It was my desire to have the delegates and representative members from the different parts of the country take this question home with them, to interest their clubs and friends, and to tell them the facts as I gave them in my paper, and also to impress upon the delegates the serious importance of prompt effort."

Mrs. Smith reports, "The audience was most attentive, giving me a hearty welcome and seeming to be *en rapport* with me in all I said. I did not mince the matter, but I presented the facts courteously and kindly and have had many enthusiastic congratulations since."



1. PHOEBE, Spring

3. SAY'S PHOEBE

2. PHOEBE, Fall

4. BLACK PHOEBE

(ONE-HALF NATURAL SIZE)

Bird = Lore

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A Raven's Nest

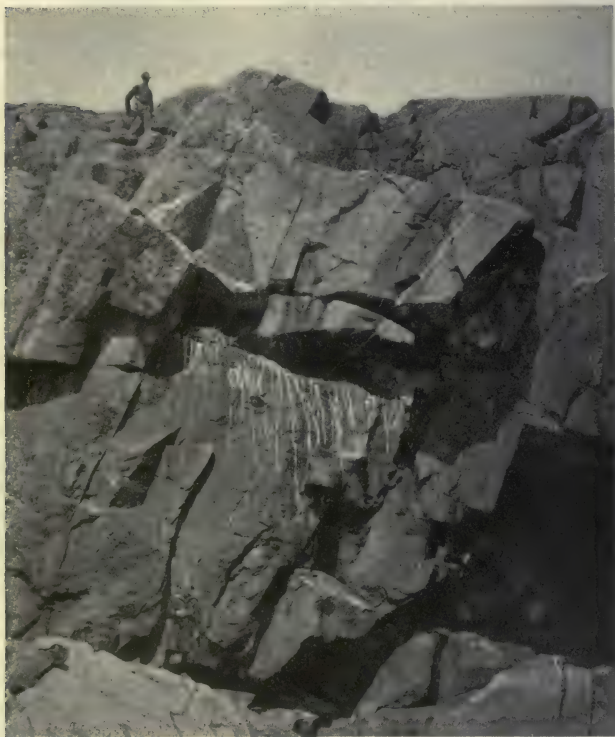
By FRANCIS H. ALLEN

THE accompanying picture shows a nest of the Northern Raven (*Corvus corax principalis*), found on Monhegan Island, off the coast of Maine, on June 2 of the present year. Though plainly to be seen from the sea and from some points on the rocky headlands near it, the nesting-site was hidden from most of the neighboring shore, and it was only after a considerable search that I succeeded in locating it. The nest was placed in a niche on the side of an almost vertical cliff, perhaps forty feet in height, on a minor promontory near one of the highest headlands on the eastern coast of the island, the narrow shelf on which it rested being about twenty feet from the base of the cliff. Though without a rope it was impossible to reach the nest, it could be approached quite closely from above, and I found there two young Ravens walking awkwardly back and forth on the shelf and in and out of the nest and looking about nervously. They were apparently full-fledged, but I could not get them to fly. Their bills appeared much heavier than Crows' bills, and the throat feathers showed the pointed ends characteristic of the species. They had the yellow mouth-corners of young birds. As long as I remained in the neighborhood they were silent, and nothing was seen of the parent birds.

When I visited the nest again, on June 4, the young had flown. Mr. Frederic Dorr Steele, who, with a few others, accompanied me, let himself down by a rope to the shelf where the nest was situated, and snapped his camera on it with one hand while he held on by the rope with the other. He then descended the cliff and photographed the nesting-site from below. The nest was composed of dead spruce branches without the bark, gathered, doubtless, from the remains of a burning near by, and was lined with usnea and sheep's wool. Wool is, I understand, as inevitably found in Ravens' nests on the Maine coast as the snake-skin in the Crested Flycatcher's nest. In this case it was perhaps a remnant saved from the time when sheep were kept on the island, a number of years ago, or it may have been brought from a distance.

The next day I spent some time watching the Ravens, both the old birds and the young, which lingered in the locality, about the cliffs and in the woods behind

them. The notes of the adults were chiefly a short and not very loud *cur-ruk* or *cruk*, with a roll to the *r*, and a somewhat prolonged, loud, hollow-sounding *croak* or *cr-r-r-awk*, pronounced with the guttural *r*, like the sound produced in gargling. This latter note can be heard a long way off and is very impressive. The tone is entirely different from anything I have ever heard from the common



A RAVEN'S NEST

"In a niche on the side of an almost vertical cliff, perhaps forty feet in height."

Photographed by Frederic Dorr Steele

Crow. Sometimes this loud croak was given as three short notes instead of single long one.

I watched one of the old Ravens sailing about above Black Head in company with an Osprey, one bird frequently diving at the other. In these encounters the Osprey was commonly the aggressor. The Raven sailed almost as well

as the Osprey, though there were intervals of flapping in his flight, while the Osprey flapped little, if at all. After the Fish Hawk had departed, two Crows appeared and pestered the Raven for a while by swooping at him. The difference in size between the two species of *Corvus* was very apparent.

While I was watching this bird, the two young came quite near me, one alighting on the rocks not far from where I sat concealed behind a young spruce, and the other settling in the tops of the woods behind me. The bird on the rock walked awkwardly and once gave a hop. Before long he also rose and flew to the trees. A short search disclosed first one and then the other. The second, when I came upon it, was sitting only five yards from me on a spruce stub. It soon flew to the top of a tree near by, and then I had both birds under my eye, near each other and near me. They impressed me as being very considerably larger than Crows, and, as before, seemed to be fully fledged, though they showed the yellow chaps characteristic of young birds. They acted like young puppies, moving their heads about aimlessly, and they frequently pecked at the dead twigs of the spruces upon which they perched, or took a mouthful of usnea, which, I think, was always soon discarded. Once, one of the old birds croaked not very far away, whereupon the restless young immediately became quiet, but after a time they began to move again, though not so freely as before. I waited, hoping that the parents would approach, but they were very wary, and I finally had to give it up. The young were absolutely silent, as when I found them at the nest.

There is something romantic and inspiring about the very name of "raven," and a Raven's nest, especially one built in a more or less inaccessible situation on the side of a cliff looking out over the open sea, seemed a particularly interesting discovery,—more so, indeed, than the nest of some rarer but less famous bird would have seemed. So the Duck Hawk, though a fine bird in itself, and rare enough to make the first meeting with it an event in a bird-lover's life, becomes still more interesting when we call it a Peregrine Falcon. With these sentiments as to the poetic value of a visit to the Raven's nest, I was somewhat taken aback when it came out that one of the small party which accompanied me at the time when the pictures were taken, a lady of literary attainments—a well-known author in fact—thought she had been to see a Crow's nest, and that a Raven was the same thing as a Crow! For her the name of "raven" had none of the associations which had made its peculiar charm for me. I am bound to say, nevertheless, that even in the depth of her ornithological ignorance she appeared to enjoy the mildly adventurous element of the excursion, and to appreciate the rugged beauties of the scene about the Ravens' home.

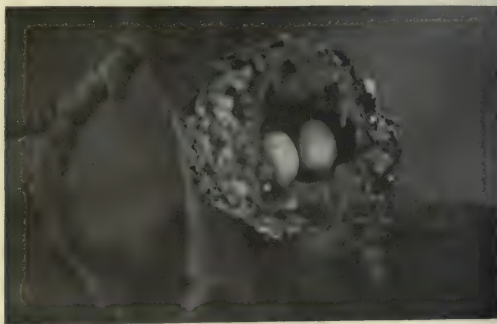
Hummingbird Eccentricities

By MARY PIERSON ALLEN, Hackettstown, N. J.

ON the last day of May, 1908, I began to watch a Hummingbird's nest which had been discovered on a maple tree along the main street of our town. The first egg was laid on June 3, and the other one on the second or third day after. I had understood that the period of incubation was about two weeks, and did not look in the nest again until the 18th, when the second egg was not yet two weeks old, and behold, no eggs appeared. I was told that the nest had been looked at on the 14th, and no eggs were visible then. It would appear, therefore, that the birds had hatched only a trifle over a week after the second egg was laid. I could only guess at the presence of the little birds at first, for the nest was rather inaccessible, but soon the tiny bills began to show when the mother came with food. There seemed no danger that they would suffer from indigestion or gout, for they were fed very, very seldom. The male, as usual, gave no help to his mate, but she seemed equal to the increasing cares as her little ones grew to lusty birds.

When about three weeks old, one bird left the nest, sitting for hours on nearby twigs. For some time the mother fed both of her little ones, then deserted the one which was still in the nest. She may have come to grief, but I might be more inclined to be charitable had not the older bird left also.

From about two o'clock in the afternoon on the day when the first one left the nest, they were never seen again, and, after the deserted baby had cried



RUBY-THROATED HUMMINGBIRD'S NEST AND EGGS

for about twenty-four hours, he got out of the nest and soon fluttered to the ground. We offered him sweetened water in a spoon and he drank greedily. He was passed over to me and I took him home. His daytime cage was the parlor, where he sat by the window on a bit of stick held by a monkey-wrench, or flew about the room at will. At night I put his perch in a round food-screen and placed him

by an upstairs open window. He was exquisitely fearless as he flew to my finger to eat honey from a spoon, or fluttered before a petunia into which I had poured sweetened water. He had his mother's *zip-zip*, which meant flowers or happiness, and a plaintive baby *peet, peet*, when he wanted food. I read up on diet and tried various kinds of food. The varieties of bugs which he was sup-



"FLEW TO MY FINGER TO EAT HONEY FROM A SPOON"

posed to eat, he scorned, and I tried white of egg as a substitute, but think that the sweets agreed with him rather better. The little sprite had over fifty visitors from babyhood to old age, and from laboring men to the president of a university, who christened him "Hugo," possibly with a view to following out the law of contrast. He did well from Monday afternoon until Saturday morning, when he seemed, for a time, quite poorly. I was frightened about him, and took him out-of-doors on his tiny perch. He soon revived and ran his beak into the petunias and even flew a little way.

But now comes the marvelous part of my story. Several days before, I had heard of another nest a short distance out of town, and, on visiting it, had found a beautiful nest about fifteen feet from the ground. Before I had watched long, the dainty house-builder appeared with a bit of plant-down in her beak, and I supposed that the structure was not done. She alighted low in the tree and was partly hidden by the foliage. When I investigated, I was much surprised to find another nest partly built. It was a still greater surprise when I learned that the one bird owned both nests. This I could hardly believe until I saw the tiny mother go to the first nest and feed her one baby, and then go down and sit on her lower nest, which had slender guy-ropes of cobweb, and was only about seven and a half feet from the ground.

But to return to my worse-than-orphaned bird: I made up my mind, after he had shown signs of weakening, that I would take him to the mother who had but one baby, and, if a miracle came to pass, she might feed him. I flew for my horse and drove out of town to the other nesting-site. Little Hugo had

quite returned to his old spirits, but I was afraid to try to keep him longer, and so set him free in the beautiful orchard where the little mother had the two nests. Her baby had left its nest, but was keeping near home, and when the kind people who owned the place, and who helped me in my study in so many ways, cut down the nest, it had one tiny, unhatched egg.

Should any one doubt my veracity when I say that that mother adopted Hugo as her own, I could scarcely complain, for had I not been assured by an oculist that my eyes are normal, I could scarcely believe it myself. Moreover, the wee home-missionary has two eggs now in her lower nest, and, after feeding the two babies, goes and sits for a while on those eggs. Think of it,—a mother four inches long, with a growing baby, two eggs and a summer boarder to look after! On Saturday afternoon I hurried back to Hugo, and spent hours watching the little family. It was then that I learned of his adoption. He was very tame, and came down to the handle of a spoon I held to drink sweetened water from the bowl. I go to see him once or twice a day, and he comes down to eat from the spoon each time and even allows me to stroke him. When good Mr. D., who owns the orchard, went out this morning, Hugo lit on his hat, and, when his food was ready, came again and ate from the spoon. When the eggs hatch, I am anxious to see whether the big baby and Hugo, who is about four days older, will be cast on the world, or whether the almost human little mother will feed all four.



HUMMER TAKING SWEETENED WATER FROM A FLOWER

A Mocking Bird s June

By ALBERT V. GOODPASTURE, Nashville, Tenn.

I WENT down to Dudley June 4. When I arrived the pair of Mockingbirds who had preëmpted our lawn were looking out for a nesting place—no doubt the second of the season, as I was assured the pair in the neighboring hedge had already taken off one brood. In the nesting season each pair of Mockingbirds have their own particular demesne; and, while they do not resent the presence of other birds, any trespass by members of their own species is stoutly resisted. I witnessed more than one battle between our Mockers and a pair who hailed from the direction of the orchard, before their title to the lawn was acknowledged.

Being finally in peaceable possession, on June 6 they commenced building their nest in a solitary cedar, six or seven feet tall, that had grown up against the fence in the meadow; on the near side of the fence was the road that skirts the margin of the woodlawn. The nest was placed just at the height of the top plank—four feet seven inches from the ground. As a rule the Mockingbird builds her nest in a solitary bush or small tree, preferably by the roadside, or near the house, only a few feet from the ground; rarely more than ten or twelve, and frequently not above four or five. Last summer a pair built and successfully hatched and reared their young in some peach tree sprouts, only four feet from the ground, and so close to the road that every carriage that passed brushed against the branches that supported the nest.

Both birds labored diligently in constructing the nest. The materials for their work were close at hand; they found most of them in the road by the fence. There was nice dry grass and straw in the meadow, but they preferred the withered weeds and exposed roots along the roadside, some of which they detached with considerable difficulty. In gathering their materials they ran along the ground a short distance, halted, daintily elevated their wings, and leisurely closed them; then off again until they had found what they wanted. Lighting on the fence with their burdens, they entered the cedar from the left, and emerged from the right, resting again on the fence before starting for fresh materials. Sometimes as one entered the other came out, giving the appearance of the same bird passing entirely through the bush; indeed, when I first observed them, I could not tell for a time whether only one or both birds were engaged. In this way they prosecuted their labor for two days, beginning before six o'clock, the earliest hour at which I visited them, and continuing until sundown.

In the meantime they had many visits from other birds. If one of them approached the nest too closely they courteously gave him to understand he was intruding; they were never violent or noisy, but always appeared firm, dignified, and confident. They took no notice of a Meadowlark singing on the fence several panels away; nor of a Brown Thrasher, which, next to the Mockingbird, is the most brilliant songster we have at Dudley; though we never hear him

except in the early spring. A Flicker quietly pluming himself on the adjoining panel to the left of the nest, caused them little anxiety; though I observed they now began entering the cedar on the right instead of the left. The matter became really serious, however, when another Flicker appeared on the scene, and took his position on the right. A Mocker mounted a post between the new comer and the nest, and mildly scolded him. The Flicker, who is a humorous bird as well as a goodnatured one, seemed to enjoy his embarrassment. He moved down to the post, and hopping round it until he faced the Mocker, playfully bantered him. Apparently realizing his ridiculous position, after a moment the Mocker disappeared in the cedar, and the Flickers flew away to a nearby telegraph post, where they had a nest just four feet above that of a Red-headed Woodpecker. Once a Wood Pewee, who had her dainty little lichen-covered nest in a post-oak across the road, attacked a Blue Jay and drove him over to the neighborhood of the Mockingbirds, who, making him the single exception to their quiet bearing, furiously chased him back.

Like all poetic natures the Mockingbird is a creature of intense emotions, and the grace and enthusiasm with which he gives them expression is charming. As I watched the nest on the afternoon of the seventh, I witnessed a beautiful scene. The female was standing very quietly on the fence by the nest, looking wistful and pensive. I could not guess the cause. Presently the male appeared. Instantly she was all animation. As he came floating in, she flew out to meet him—not far, perhaps three or four feet—and then, in a flutter of delight, she moved backward with him to the fence. Perhaps she was telling him that she had given the last finishing touches to their nest.

The next morning I heard him singing on the telegraph wire, and when I went to the nest I found she had laid in it a little greenish blue egg, speckled with brown; and each succeeding day she laid another, until there were four. And how jealously they guarded them! One or the other was constantly on the lookout. The male spent much of his time in song, but he never sang near the nest, though it was seldom out of his sight. The female was its special guardian. If one approached the nest, instantly she appeared and anxiously questioned his movements with her bright, intelligent eyes. I do not think she regarded me as an enemy, though I daily examined her eggs and young, as I have done in other nests, to contradict in my own experience the old myth, which some people still believe, that the Mockingbird will destroy her eggs, or poison her young, if handled in the nest. Her nest was midway on the line of travel between the telegraph pole of the Flicker and Red-headed Woodpecker and the woodlawn by the house. In passing they often halted on the fence near it. In such cases, she promptly placed herself between the intruder and the nest. When a black cat passed up the road, there was real cause for anxiety; but she did not attack him, as we have been taught she would. She quietly followed him along the fence until he had passed the nest. By the time they had reached it, in some way a hue and cry had been raised, and a multitude of birds, Bronzed Grackles, English

Sparrows, Blue Jays and our ever watchful little Wood Pewee, joined in the chase, and, raised such a clamor that the cat stopped and looked up, but finding none of them in his reach, moved leisurely on.

On June 12 the female began to sit. The male did not assist her in the incubation, and was not often near the nest. Once I saw him watching on the fencepost while she was away, but when she returned and entered the nest he flew off to the telegraph wire and renewed his song. He now abandoned himself to his art. He frequently shifted his position from one elevated perch to another, such as the comb of the barn, the telegraph wire, the tops of isolated maples, and, occasionally, the fence, making a wide circuit from the nest, but keeping it constantly in view. While his song may have been inspired by the poetic purpose of cheering his sitting mate, I am sure he did not lose sight of the practical effect it might have in alluring his enemies away from her nesting place.

After an incubation of ten days, the young Mockers were hatched on the 22d. The father then ceased his song; he was too busy to sing; he joined actively with the mother in feeding the young. And how happy they were! I watched their first rejoicings with the greatest interest. How he petted and praised her! In return she showed him the little pledges of their love. Preceding him to the nest, she hovered over the little fellows, and glided lightly and noiselessly out. Then he entered, remained but a moment, and rejoined her on the fence. Now they dropped from the top plank of the fence to the next lower, and the third; and glided in and out among the lower branches of the small cedar that contained their nest.

Under the active ministrations of the parent birds, the young Mockers grew bravely until they were five days old. The succeeding night, the moon being at its full, was bright and luminous almost as the day. In the stillness of the night—I do not know the hour—the old gray cat left her kittens under the cabin and prowled out in the moonlight to see what she could find. She passed through the woodlawn into the meadow. By some unhappy instinct or accident, she found her way to the little cedar by the fence. Her feet were wet with dew. She crossed back through the fence into the dusty road, and stopped directly under the nest. How she knew it was there I cannot guess, unless the black cat told her. At any rate she suspected the truth. She leaped to the second plank from the bottom of the fence; the sharp claws of her front feet caught in the upper edge of the plank, and the dew-wet dust left the full round mark of her hind feet just under them on the side of the plank. At this moment the anxiety and alarm of the devoted mother must have been intense. But her suspense was short. The cat mounted straight up; the fence shows her claws on the upper edge, and her feet on the side of the third and of the top plank. The mother still covers her young. The cat now makes her spring. She was but twelve inches from the nest and might have crept to it, but the gray fur left on the cedar twigs show the suddenness and violence of her movement. There was no possible

escape for the young, but did the cat get the mother? I asked myself that question twenty times the next day.

When I arose next morning the male was singing gloriously from the top-most twig of the spruce pine by the garden. I had never heard him sing so sweetly. The Mockingbird is a musical genius the brilliancy of whose performance is beyond my power of description. The most obvious charms of his song however, are the infinite variety and range of his round, full, distinct notes, and the rapidity and enthusiasm with which he trills his marvelous medley, composed of his own native notes, intermingled with the songs of all the other birds of his acquaintance. Four observations of his song, taken at different times, will convey some idea of his performance: (1) In ten minutes he changed his song of from one to four notes, forty-six times, and repeated each from one to nine times—on an average 3.41 times. (2) In three minutes he changed his song twenty-eight times, repeated each from one to nine times—average four times. (3) In one minute he changed thirteen times, repeated from one to nine times—average 6.3 times. (4) In ten minutes he changed 137 times, repeated from one to twelve times—average 3.18 times. His song, however, is little more remarkable than the grace and elegance of his form and movements. His wings rest lightly against his person, but do not hang, as the Catbird's sometimes do; his tail swings loose, but never droops. A light gust of wind will sometimes carry wings and tail above his body, but he readjusts them with perfect grace. His buoyancy is quite astonishing. He is so light and airy that he appears an ethereal being—the spirit of song. When he mounts aloft in the ecstasy of his song, there is no perceptible movement in the small twig on which he stood; he never uses it as a spring-board, like the Blue Jay, for instance, who shakes the whole tree-top when he leaves. He mounts with his wings, makes graceful convolutions in his song-flight, returns to the place he left, poises himself in the air, reaches down his feet and takes hold of the slender twig without the slightest jar. He never misses his hold, nor loses his balance. I have seen him bound aloft, float backward, downward, and inward to his original perch, describing a complete vertical circle, without changing the direction of his body. He continued his song at intervals all day, flitting restlessly from place to place, greatly enlarging his range, but never going near the desolated nest.

His mate turned up on the 27th, and entered energetically on the building of a new nest. She had suffered no other physical damage from the night's adventure than a broken feather—one of the beautiful white exterior feathers of the tail.

Concluding, I summarize the labors of our Mockingbirds for the man of records:

Building	June 6-7	2 days
Laying	June 8-11	4 days
Incubating	June 12-21	10 days
Care of young	June 22-26	5 days
Mating for new brood	June 27	1 day
Building	June 28-29	2 days

The Growth of Young Black-billed Cuckoos

By A. A. SAUNDERS, New Haven, Conn.

ON June 12, 1907, a friend informed me that he had found the nest of a Black-billed Cuckoo. I visited it a few days later. The nest was in an elder bush, on the bank of a stream, and about five feet from the ground. It contained only two eggs, but, as they had already been there several days, I decided that this was the whole set. I was rather surprised at this, as a nest I had found the previous season had contained four eggs. A few days later I found another Black-bill's nest, also with but two eggs. At both of these nests I noticed that the bird often sat in a curious position, with her head thrown back and her bill pointing almost vertically toward the sky.

At my first visit to the first of these nests, on June 25, I found that the eggs had hatched. The egg-shells had not been removed, but were in the bottom of the nest, broken into small pieces. The young Cuckoos were very curious-looking. Their skin was dull black and their bills and feet bluish black. In

place of the patches of down found on young passerine birds, they were clothed with coarse white hairs evenly distributed over the body. They were evidently several days old, as their eyes were already beginning to open. They were very sleepy in their actions and resented handling with a curious, grunting sound.

During the next few days I visited them frequently. Their eyes opened wider and the white hairs grew longer, and

at the base of each one a closely sheathed feather appeared. Unlike most young birds, they were very inactive during the morning, but became quite lively toward evening. At such times, when I approached, they stretched their necks to the utmost, opening and shutting their beaks and making hissing and grunting sounds. At such times they exhibited another peculiar mark. The lining of the mouth was bright red, and on the roof of it were one or two large, white spots.

On the morning of June 30, one of them was greatly changed in appearance. The feathers of the back and breast had broken through the sheaths and only those of the head and throat still remained unbroken. The other bird still had all the feathers sheathed. I placed them on a nearby limb and took their picture. They were much easier to handle than most young birds, but were very stiff and awkward in their poses. When the picture was taken, I put them back in the



YOUNG BLACK-BILLED CUCKOO,
JUNE 30, 7:30 A. M.
Photographed by A. A. Saunders

nest and they settled down as though nothing unusual had happened. I was anxious to watch the sudden transformation which young Cuckoos undergo just before leaving the nest, so I visited them again that day at about 6 P. M. The older bird had left the nest and was nowhere to be found. The feathers were beginning to unsheath on the back and wings of the younger bird. I took the second picture of the bird in this condition.

The next morning I reached the nest by 6 o'clock, certain that great changes had taken place overnight. As I approached the nest, the young bird hopped out of his own accord. I was much surprised to see that there had

been no apparent change in the bird's plumage. I took another picture nevertheless, and, as the young bird refused to go back to the nest, left it perching on a convenient twig. At 9 o'clock that morning I visited the nest again, with two friends, who wished to get pictures of the bird. We soon found him near where I had placed him, though not on the same twig. The feathers of the back and

breast were nearly all unsheathed. Apparently the process of the breaking of the feathers, which had begun the previous afternoon had been arrested over night and continued again in the morning. This suggests the thought that perhaps light or heat is necessary for this process.

The change in the behavior of the young Cuckoo was equal to that in his appearance. Instead of



YOUNG BLACK-BILLED CUCKOO.

JULY 1, 6 A. M.

Photographed by A. A. Saunders



YOUNG BLACK-BILLED CUCKOO, JULY 1, 9 A. M.

Photographed by D. B. Pangburn

posing stiffly and awkwardly before the camera, he had no intention of posing at all. Though unable to fly, he would edge rapidly along the branch on which we placed him, till he neared another, to which he would jump. He was wonderfully acrobatic and, once in the bushes, jumped and climbed rapidly.

Chestnut-sided Warbler—A Study

By MARY C. DICKERSON

With photographs by the author

THE nest was two feet from the ground, in a viburnum bush, and was owned by an atom of bird-life, a Chestnut-sided Warbler, who was in possession at the moment. She made a charming picture on the nest, her yellow cap, above her bright black eyes, shining like gold in the sun. This Chestnut-sided Warbler was a trustful bird and did not move till the enemy was fairly upon her, when she stretched up her head and was gone so silently and swiftly that it was impossible to tell how she went, or where.

Immediately she appeared on the branches above the nest, flying out for an insect here, cleaning her bill yonder, inspecting this branch, then that, but



CHESTNUT-SIDED WARBLER BROODING

all of the time keeping an eager eye on the doings of the enemy. Her behavior had the effect of drawing attention to herself and thus away from the nest. With sides shining blood-red, with the golden cap and a white throat, and with a bright, quick grace of motion, she was inspiring enough to lure any eye from a mere nest of speckled eggs—notwithstanding the fact that these eggs were exquisite in their delicacy of shape and color, slightly tinted with cream, and speckled with brown at the larger end (if it is possible to use that comparative with anything so small).

Among birds all of the main acts connected with rearing the young are instinctive, of course. But really how wonderful is this blind giving up of freedom by a wild bird. She sits patiently and without nervousness minute after minute, half hour after half hour, fully alert, hearing everything, seeing everything, yet letting the insects fly past uncaught, and her mate chase and hunt and sing

without her. How strong must be the prompting that enables a bird to control her impulse to action, when she receives continually the sensations which have hitherto been inseparable from action. There is no vacillating in instinctive action. Nature holds to strict unquestioning obedience with a death penalty for disobedience.

The Warbler is back in her place. The nest is sheltered peculiarly well by the low viburnums and the stone wall. There is not a breath of wind there, when the trees and shrubs in the open are swaying vigorously. A Song Sparrow sings from the stone wall; a Black and White Warbler is continually seesawing its notes at the edge of the woods; a White-eyed Vireo calls emphatically from a near tangle of green; Swifts circle and chatter above her; these are all pleasant or indifferent sounds in her ears,—at least she does not stir. At the barking of a dog in the woods she breathes faster and erects the feathers of her crown, but still sits close.

Her mate seldom goes far from the nest. He wanders among surrounding trees and shrubs catching a fly or gnat here, a caterpillar yonder, on and back, this way and that, as a child might wander, attracted now by a ripe strawberry, now by a beautiful flower, shade or a convenient path. And he sings continually, even as he snaps up a passing insect and while balancing himself on a wind-swept branch. To human ears his song is much like that of the Redstart who is nesting near, but he puts the strong accent on the next to the last note, while the Redstart makes the final note emphatic.

When twilight comes a Chestnut-sided Warbler on the nest is remarkably well protected. In fact, the nest looks empty to the most observing eyes. Details of the surrounding vegetation may stand out with considerable clearness but the nest is empty—one can see that the sides curve downward and the bottom, quite destitute of eggs, shows distinctly. It is difficult to believe that the bird is there. The streaked feathers of the back and wings of the bird seem to be the grasses at the bottom of the nest, while the bird's gay-colored head is tucked under her wing for the night, or if not, it blends with the nest's rim.

Later when the eggs are hatched (thirteen days after the laying of the first egg) and the Chestnut-sided Warbler is brooding the young, there comes many a struggle between the maternal instinct of the bird and her fear instinct. When an enemy discovers the nest and she is forced to leave, she may flutter to the ground and feign a broken wing, dragging her minute self about in a pathetic fashion. Finding that this is not effective, she may return to the immediate vicinity of the nest. Here she sits on a small branch beside the nest. Talk to her and her fear increases, yet she will not leave. Twice she nearly falls from her perch, toppling forward and regaining position again. She is 'charmed' in the same manner that a bird is said to be 'charmed' by a snake; that is, the snake has done nothing, but the bird is a slave to its own fear.

While she is thus occupied her mate comes to the nest three times, at each visit bringing a bill full of tiny green caterpillars.

Be warned to keep from a Chestnut-sided Warbler's nest after the young birds are a few days old, for they seem to possess an unusual nervous irritability and gain the fear instinct at an unusually early period. They become frantic at any disturbance, even when the feathers extend from their tubes so little that the birds seem covered with minute camel's hair brushes, at a time when most nestlings have an undisturbed, dignified manner because knowing nothing of fear. They leap from the nest and even if caught and returned are likely to refuse to stay. Perhaps all Chestnut-sided Warblers do not gain the fear instinct as early as did those of three broods observed (instead of only one to three days before flight). But if they do, it would seem that here natural selection has a handle by which to keep the ranks of this species well reduced.



ROSE-BREADED GROSBEAK AND NEST

Photographed by F. E. Howe, Sterling, Ill.

The Migration of Flycatchers

SIXTH PAPER

Compiled by Professor W. W. Cooke, Chiefly from Data
in the Biological Survey

With Drawings by LOUIS AGASSIZ FUERTES and BRUCE HORSFALL

PHOEBE

The Phoebe winters in the Gulf States from Florida to Texas, and, occasionally, north to the Potomac and Ohio valleys. Hence, no dates of spring migration are available until the northern part of the winter home is reached.

SPRING MIGRATION

PLACE	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
Variety Mills, Va.....	15	March 3	Rare, winter
New Market, Va.....	16	March 16	March 9, 1892
Washington, D. C.....	20	March 13	February 23, 1902
Beaver, Pa.....	7	March 23	March 15, 1903
Philadelphia, Pa. (near).....	12	March 23	January 23, 1894
Renovo, Pa.....	12	March 26	March 15, 1898
New Providence, N. J.....	8	March 19	March 8, 1894
Englewood, N. J.....	11	March 21	March 13, 1894
Ballston Spa, N. Y.....	12	March 31	March 20, 1902
Paradox, N. Y.....	5	April 4	March 31, 1888
Jewett City, Conn.....	17	March 24	March 15, 1902
Hartford, Conn.....	16	March 25	March 13, 1898
Beverly, Mass.....	5	March 23	March 12, 1898
Charlotte, Vt.....	12	April 1	March 23, 1897
St. Johnsbury, Vt.....	9	April 2	March 22, 1902
Hanover, N. H.....	9	April 2	March 31, 1889
Monadnock, N. H.....	3	March 26	March 22, 1903
Southwestern Maine.....	16	April 6	March 24, 1905
Montreal, Canada.....	6	April 17	April 10, 1887
Scotch Lake, N. B.....	2	April 19	April 18, 1907
Eubank, Ky.....	6	Feb. 27	February 13, 1890
St. Louis, Mo.....	5	March 16	March 3, 1882
Independence, Mo.....	6	March 13	March 11, 1902
Odin, Ill.....	8	March 16	March 3, 1894
Chicago, Ill.....	16	March 22	March 12, 1904
Rockford, Ill.....	7	March 21	March 12, 1880
Brookville, Ind.....	5	March 11	March 1, 1881
Bloomington, Ind.....	8	March 15	March 2, 1893
Waterloo, Ind. (near).....	12	March 19	March 11, 1887
Oberlin, O.....	8	March 20	March 14, 1903
Petersburg, Mich.....	9	March 16	March 10, 1894
Plymouth, Mich.....	6	March 21	March 17, 1894
Southwestern Ontario.....	18	March 30	March 20, 1903
Strathroy, Ont.....	12	April 1	March 19, 1903
Ottawa, Ont.....	17	April 7	March 26, 1907
Manhattan, Kan.....	10	March 22	March 14, 1885
Onaga, Kan.....	13	March 22	March 13, 1893
Keokuk, Ia.....	10	March 20	March 12, 1893
Grinnell, Ia.....	5	March 19	February 27, 1885
Iowa City, Ia.....	13	March 23	March 1, 1882

SPRING MIGRATION, continued

PLACE	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
Southern Wisconsin.....	19	March 27	March 18, 1894
Lanesboro, Minn.	10	March 27	March 22, 1889
Minneapolis, Minn.....	13	April 5	March 22, 1907
Edmonton, Alberta.....			April 19, 1897
Fort Simpson, Mackenzie.....			May 14, 1904

The Phoebe does not breed in Florida and the last birds left northern Florida on the average, March 17, latest April 1, 1887; Kirkwood, Ga., latest April 5, 1902; Raleigh, N. C., average, April 7, latest, April 16, 1887; New Orleans, La., average, March 30, latest, April 26. On the return in the fall, they first appeared, at Raleigh, N. C., average, September 29, earliest, September 26, 1889; northern Florida, average, October 4; earliest, September 28, 1903; southern Mississippi, average, October 7; earliest, September 1, 1903; New Orleans, La., average, October 9; earliest, September 25, 1897.

FALL MIGRATION

PLACE	Number of years' record	Average date of last one seen	Latest date of the last one seen
Lanesboro, Minn.	7	October 7	October 13, 1891
Onaga, Kans.....	5	October 7	October 17, 1906
Ottawa, Ont.	9	October 2	October 10, 1905
Southwestern Ontario.....	9	October 4	October 15, 1889
Chicago, Ill.....	4	October 8	November 10, 1906
Oberlin, Ohio.....	4	October 5	October 19, 1906
Wauseon, Ohio.....	6	October 8	October 27, 1890
Waterloo, Ind. (near).....	6	October 9	October 28, 1889
Central Iowa.....	12	October 15	October 28, 1905
St. Louis, Mo.....			October 27, 1885
Athens, Tenn.....	5	November 16	Rare, winter
Scotch Lake, N. B.....			October 8, 1900
Montreal, Canada.....	3	September 26	October 8, 1888
Southwestern Maine.....	16	October 9	October 19, 1895
Providence, R. I.....	4	October 9	October 27, 1901
Hartford, Conn.....	4	October 11	October 30, 1900
Englewood, N. J.....	4	October 19	October 25, 1905
New Providence, N. J.....	6	October 21	November 5, 1892
Renovo, Pa.	10	October 10	October 18, 1894
Berwyn, Pa.....	7	October 18	October 31, 1889
Beaver, Pa.....	5	October 18	October 21, 1889
Washington, D. C.....	8	October 17	December 31, 1883
French Creek, W. Va.....	4	October 15	October 21, 1890

SAY'S PHOEBE

Say's Phoebe is resident throughout a large part of its range, including western Texas, New Mexico, Arizona, and much of California. A few notes have been contributed on the migratory individuals.

SPRING MIGRATION

PLACE	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
Chelan, Wash.			March 17, 1896
Okanagon Landing, B. C.			March 29, 1906
Northern Colorado	7	April 5	March 20, 1907
Cheyenne, Wyo.	2	April 9	April 7, 1889
Terry, Mont.	5	April 18	April 5, 1896
Edmonton, Alberta (near)			April 22, 1903
Athabaska Landing, Alberta			May 5, 1901
Fort Simpson, Mackenzie			May 4, 1904

BLACK PHOEBE

This Flycatcher is, for the most part, non-migratory, and ranges in western North America from Mexico and lower California, north to southern Oregon and east to central Texas.



FLORIDA BLUE JAY

Photographed by Frank M. Chapman, at Gainesville, Florida

Notes from Field and Study

Notes on the Varied Thrush at Everett, Washington

The Varied Thrushes are among the most characteristic birds of a Puget Sound winter. Many a rainy day is made less dreary by their bright presence and their peculiar song, for these birds, unlike most of our winter residents, sing more or less freely throughout their stay—a habit which, according to Mr. Lord's book, is not shared by the Varied Thrushes wintering in Oregon.

These Thrushes arrive in Everett about the middle of September. Sometimes the first intimation we have of their arrival is the sound of their odd song, which sets our nerves thrilling and our hearts rejoicing in eager welcome. But more often we first come upon a flock of them scratching in a wood path, among the fallen leaves, their handsome plumage harmonizing so well with the fall landscape that they seem the very spirit of September. When thus disturbed, they show little fear. They fly deliberately to the alder trees overhead, alighting on the larger branches. Occasionally one shows his interest by uttering a low, soft *puk* as we pass, but usually the whole flock is silent, watching the intruders with a calm dignity worthy of their family. If, however, we attempt a familiarity inconsistent with Thrush etiquette, they withdraw to the privacy of the tall fir trees which they love.

The Varied Thrushes eat alder and other seeds, and insects uncovered in their scratching; also crumbs and refuse about the dooryards. Winter before last, during an unusually heavy snowfall of eight inches, the Thrushes were regular visitors at our grain table and became quite tame, showing no alarm when we passed within a few feet of them. This same snowstorm, which killed so many birds in all the northern states, may have caused the death of many Varied Thrushes less fortunate than our visitors, for last

winter the birds were more scarce than they have been for years. They disappeared from our neighborhood altogether in November and did not return until February 15, and since then they been seen only singly, or in twos or threes.

In the southern part of Washington, the Varied Thrushes mingle freely with the Robins, which winter there in large numbers. In some parts of the state they are summer residents. I have seen them in July in the Cascade mountains, at an elevation of about 600 feet, and have heard their song in August at the snow-line, 8,000 feet above sea-level. During the summer of 1906, the song was often heard in the fir forest near Everett at tide-water, but we were unable to discover whether or not the birds nested there.

Mr. Fuertes has described the song of the Varied Thrush as he heard it in Alaska. He says it is "most unique and mysterious, and may be heard in the deep, still spruce forests for a great distance, being very loud and wonderfully penetrating. It is a single, long-drawn note, uttered in several different keys, some of the high-pitched ones with a strong, vibrant trill. Each note grows out of nothing, swells to a full tone, and then fades away to nothing, until one is carried away by the mysterious song."

We hear the song very frequently through the fall and winter months, but it is not so musical at that time as is the singing of the spring season. The birds sing often at sunset and occasionally through the busy hours of daylight, but seem to love best the early morning hours, singing to perfection in the first gray light of dawn. It matters not to them whether the air be clear and frosty, or heavy with rain and fog. The call is repeated from one tall fir top to another, sometimes clear and high-pitched, sometimes low, but always with that indescribable quality which "makes one thrill with a strange feeling," to quote Mr. Fuertes. It seems to express

a strange mingling of the most profound sadness with perfect triumph. The song varies greatly in quality, even in the same individual. When heard close at hand, it is somewhat disappointing. It seems to resolve itself into discordant elements and to produce almost a grating sound. This is especially true of the lower notes. One bird, singing for half an hour from the top of a tall, dead cedar, about 250 feet distant, gave the amusing impression of a vocalist practising a difficult lesson. Sometimes the notes rang out high, clear and thrilling; sometimes they were low and guttural, with a strong vibration strangely like the croak of a frog. Very often the singer would cut the low notes short, as if in disgust at his own performance; then, after a pause, would follow with a note much higher and clearer. Some of the notes were held as long as two seconds, but most of them about a second and a half, some of the low notes being broken short off almost as soon as begun. The intervals between the notes were occupied by the singer mainly in preening his feathers.—MRS. STEPHEN V. THAYER, *Everett, Wash.*

Nest-Building in August

I witnessed a performance, week before last, which seemed to me most unusual, although, to many of your readers who are more familiar with the habits of birds than I am, it may not seem at all uncommon. The fourth of this month (August) a friend visiting at my summer home said she had seen a pair of Robins building a nest in a black-thorn bush near the house, and that she had put some pieces of white and colored worsted in the grass which the birds had evidently found good building material, as they had carried it all off during the day. Early the next morning I went out to see if they were still preparing for housekeeping, and there they were, busily at work gathering bits of straw, dried stems of nasturtiums, etc., and taking them up to their nest, which, upon inspection, I found to be, apparently, completed on the outside. Wishing to

help them along, I got several pieces of cotton twine and put them in the grass, and almost before I could resume my seat on the piazza, the female gathered them up all at once. I said *they* were building; I should have said the female was, as the male sat about on a nearby tree, illustrating the song that "everybody works but father," and occasionally dropping to the ground to gather in an early worm, which he greedily devoured. He had a having-been-out-all-night appearance, which I attributed to his probably undergoing the process of molting. The female was evidently in the same condition, although, like a much higher order of the animal kingdom, she had spruced up as much as possible under the circumstances, and looked quite neat and trim, compared to her lazy husband. After giving her a long piece of twine (about ten feet), which she gathered up without any difficulty, I thought I would have a little fun with her, so I tied a nail to another piece of twine and watched her try to separate them. Finding she could not do that, she took the twine, nail and all up to her nest, but afterward discarded it and it dangled from a lower branch. Knowing her time was valuable, and not wishing to interrupt her domestic plans any further, I got a lot more worsted and spread it out on the grass, but to my surprise she ignored it altogether, and continued to collect straws and stems. I then got some straw for her, but when I came out from breakfast, all of my last contribution remained untouched, and when I looked again, two hours later, the whole project of nest-building seemed to have been abandoned and the birds *I thought* had gone for good. The bush was in full view of the kitchen windows, and the servants, who had taken great interest in the nest, told me several days later they had not seen the birds since. I began to think that I had maligned the male bird and that while he had no objection to his wife's amusing herself building a nest, his indifference was due to his superior judgment in considering it foolish to start a nest so late in the season.

This morning (August 23), nineteen

days since I saw the bird at work, I thought I would take down the nest and see what disposition she had made of the colored worsted. When I went to the black-thorn bush, I was much surprised to see a Robin's tail protruding over the edge of the nest and a few minutes later, when the female left, the male appeared with a bill full of worms and proceeded to feed some young birds whose heads I could see and who appeared to be two or three days old. I have looked at the nest several times since I thought she had abandoned it, and have never seen any sign of her, although I have seen the male bird often in other parts of the garden; yet she slipped in quietly and unobserved, finished her nest, laid her eggs and is now, the last of August, beginning to rear her little ones.—ALEXANDER POPE, *Hingham, Mass.*

Protecting Young Birds from the Cats

It is little use for bird-lovers to meet and pass resolutions if they are going to allow an army of cats to eat up three-fourths or more of the song birds that are hatched.

The time when the domestic cat accomplishes her most terribly effective work is in the early summer when the young birds are unable to fly more than a few feet at a time and are easily picked up, either night or day. Mr. O. A. Stemple, of Clearwater, Fla., has, however, evolved a scheme which promises to save many of the young, if bird-lovers will only put it in practice. It is simply this: Catch the young birds and put them into a clean flour barrel standing in the shade of a tree near enough to the house to be easily watched. Leave it open at the top and put in food and a shallow dish of fresh water with the young birds. The parents will soon find and feed them, and when they are able to fly upward and out of the barrel, they will take care of themselves. Of course, they must be watched by day and securely covered at night until they are strong enough to fly out of their place of refuge.

We had an exciting episode here yes-

terday with a family of young Cardinals. The ambitious little things were out of the nest and unable to fly more than a few feet at a time. The frantic parents were feeding them and trying to keep track of their offspring.

We saw a Blue Jay make an attack upon one of them, and hurried to the rescue. But two of the little ones went chirping into a neighbor's yard. Being unable to get through the wire fence I rushed around the corner and into the yard, but I was two minutes or more too late,—only the cat was visible.

We caught the other two, however, and put them under a sieve with a heavy weight upon it for the night.

This morning we put the little ones into a clean barrel which stands in the shade of an orange tree. I mixed a hard-boiled egg finely with a teaspoonful of corn meal and put it into the barrel; also a shallow dish of fresh water. The top is open and the old birds are today taking care of them.

The brilliant male gallantly stands guard to keep the Jays away, while the loyal mother goes into the depths of the barrel (which looks so much like a trap) to feed her young. The little things are eating and growing and once in a while they are exercising their wings in flying upward. The barrel will be closely watched today and carefully covered with the sieve well fastened down before it is quite dark. It will be uncovered very early in the morning, and in three days time, or perhaps less, the birds will be free and independent.—ELIZABETH A. REED, *Clearwater, Fla.*

A Robin Note

My laboratory studio in Princeton is on the second floor of North College, with a window toward the campus, to the north. This side of Old Nassau is completely covered with ivy, in which dozens of English Sparrows nest.

A few years ago Robins were very numerous on the college campus, but of late a few red squirrels have their abode

there, and, with but a few exceptions, the Robins have been driven away. One Robin has built over the arch of the center window, and this spring a curious bird note could be heard all day long. This was an incessant sparrow-like chirp,



A LOOTED BOB-WHITE'S NEST
Photographed by Frank van Gilluwe

interspersed with snatches of Robin song—the chirp predominating; this was made by a fine full-plumaged male Robin. He had probably been reared among the Sparrows and, by imitation, had acquired their notes.—BRUCE HORSFALL, *Princeton, N. J.*

A Tragedy in Bird Life

These early June mornings, so tempting to bird-lovers, have often found my brother and I afield armed with field glass and camera. And always, as we have

reached a certain favorite spot, the familiar call, "Bob White! Bob White!" has been sure to greet us. Often, too, we flushed the Quail from the underbrush, but never a trace of the nest could we find.

Recently the mystery was solved, and a woodland tragedy disclosed as well.

So carefully was the nest made, and so well was it hidden, that had it not been for the tragedy, we should probably never have found it. But five or six of the white eggs scattered about in front of the nest drew the eye and, together with a bunch of feathers behind it, told the sad story.

Perhaps a family of young weasels that I saw playing in a thicket hard by could have told more of it. And had we had time to stay and watch we

might have caught the thief coming back for the rest of his booty.

The nest is beautifully arched. One might almost call it a blind tunnel. Perhaps that is why the too careful mother was caught.

It was built just in front of a thick clump of tall grass, some of which was bent over and mixed with other grass and weeds to form the top. Almost directly in front of the nest was a thick bush which had to be held aside while my brother took the picture. It will always be one of great interest to us both.—EMMA VAN GILLUWE, *Ocean Grove, N. J.*

Notes on the Rose-breasted Grosbeak

In looking over some of my earlier notes on the Rose-breasted Grosbeak I found the following entries which seem, at the present time of writing, to be rather unique and worthy of permanent recording.

The year 1891 witnessed some of my first attempts at field-work in ornithology. My home was at that time in Jackson, Mich., and my field of observation a tract of semi-swampy ground on the southwestern extremities of the city, known locally as the 'Willows,' a term which has clung to the district ever since.

Here it was that, in the fore-part of May, 1891, in company with a friend, I met with a flock of about twelve male Grosbeaks in such a state of exhaustion that we were enabled to remove one or two from their perches in a low tree and hold them in our hands without further demonstration of displeasure from the birds than that of receiving a sharp nip on the fingers. We watched them for all of a half-hour and thought at the time that they were suffering from some sort of illness because of their apparent lack of strength. When first noted, the birds were clambering over the limbs of the poplars, in a languid and clumsy manner, but soon appeared to regain their strength. The time of observation was about 8 A. M. and the morning a mild one, with some traces of mist in the air, as the result of previous rains. Moreover, this was the first record of the species for that spring.

Looking back upon the occurrence now, the only explanation at all satisfactory is that the Grosbeaks were recovering

from the extreme fatigue attendant upon the migratory movement from the south. This explanation is well sustained by the fact that the birds were still in a body, not having had time to disperse over the surrounding territory in quest of food. The morning being a mild one, the birds could not have been suffering from cold nor from lack of food supply, as the leaf and flower buds were well advanced on the majority of the shrubs for the season of the year and must also have supported some insect life.

If any of the readers of BIRD-LORE have met with a similar experience regarding this or any other species of bird, the writer would be glad to receive communications from such observers regarding this point.—A. D. TINKER, *Ann Arbor, Mich.*

Notes on the Wood Thrush

About the beginning of May, 1908, a nest of the Wood Thrush was found in a pine woods not far from home. It was built in a sapling, and, when found, contained four eggs. Several days later I visited the nest, but the eggs were gone, probably destroyed by a Blue Jay or other enemy. I found another nest on May 14, in the same locality, and this one also contained eggs. I visited it several times after this, and on every occasion the bird was on the nest. On May 27 there was no sign of eggs or bird. A little later on I found another nest. It was not far from the other two, and was built in a tall sapling. When found, the nest contained young birds. These were raised successfully. On June 2 I found another nest of the same bird. It was also built in a sapling. On June 6 a Thrush was on the nest. For several days after this I did not see the bird and secured the nest. It was a usual Wood Thrush nest, being built of pine needles, rootlets, leaves and a little moss. Strange to say, a large piece of snake-skin was also used. This is the only nest of the Wood Thrush I have seen that contained snake-skin.—EDWARD S. DINGLE, *Summerton, S. C.*

Book News and Reviews

The Ornithological Magazines

THE AUK.—The July number of 'The Auk' is a curious mixture of popular and scientific ornithology, with some nomenclature besides, which is neither one nor the other. Readable 'Observations on the Golden Eagle in Montana,' by E. S. Cameron, are accompanied by fine half-tone plates of the country and of the birds. Some of the prevailing ideas and stories regarding the habits and accomplishments of this splendid species are upset by Mr. Cameron.

One of the many dangers to which migrating birds are exposed is related by J. H. Fleming in an article on 'The Destruction of Whistling Swans (*Olor columbianus*) at Niagara Falls,' where, last March, fully a hundred of these great white creatures were swept over the falls and killed or captured afterwards. On page 317, R. Deane records a disaster to Chimney Swifts, several hundred being overcome by coal-gas in a chimney they had unwisely attempted to descend; and a third tragedy is noted by J. H. Bowles, on page 312, who found Mallard Ducks dead, apparently from lead-poisoning, due, evidently, to bird-shot that they had swallowed in quantity by mistake for gravel.

R. C. Harlow has 'Recent Notes on the Birds of Eastern Pennsylvania,' and C. J. Pennock contributes 'Birds of Delaware—Additional Notes.' '*Larus kumlieni*, and Other Northern Gulls in the Neighborhood of Boston,' is the title of a paper by F. H. Allen.

J. H. Riley describes a new race of the Broad-winged Hawk from Antigua, naming it *insulicola*, and E. J. Court separates the Great Salt Lake Blue Heron under the name *treganzai*. As each of these new forms is based, primarily, on a single breeding specimen, the need for new names may well be doubted. Without reflecting, in any way, on the good intentions of these describers, it might be re-

marked that the modern tendency is to name a difference first and explain it afterwards.

Fifty-seven pages are devoted to the Fourteenth Supplement to the A. O. U. 'Check-List,' now a thing of rags and tatters, ready for the nomenclatural junk-heap. This supplement is a ghastly four-years' record of changes and errors. The new additions are only thirty-four, ten of them being full species, of which six are stragglers to Greenland. The law of priority is cited as the chief scape-goat for the havoc wrought, but there is something radically wrong with any laws or rules of nomenclature which permit of such constant overturning of names as has been seen in the last decade. To the game of names no penalties are attached, and the rules are so complicated that few people can tell if one plays fair or not; so that, unless this amusement is taken bodily out of the hands of experts, no permanent stability is to be expected. Side-lights on the game are furnished by Dr. J. A. Allen in 'The Case of *Strix* vs. *Aluco*,' and 'Columbina vs. *Chamepelia*;' but space forbids comment on the briefs presented, except to note that they set forth a deplorable amount of error and opinion. If names could be minted like coins, or, at least, all run through the same machine, we should soon have a stable nomenclature. The present exhibit is enough to disgust everybody who believes there is something beyond mere names in scientific progress.—J. D., Jr.

THE CONDOR.—Since the last review of 'The Condor,' several numbers have appeared, of which those for March and May still await notice. The opening article in the March number, forming the third part of Finley's 'Life History of the California Condor,' treats of the home-life of the bird, and is illustrated with one plate and five text figures. Adam's 'Notes on the Rhea, or South American Ostrich,' illustrated with reproductions of three

photographs, contains an account of the habits of the bird, and the Indian methods of cooking the Rhea and its eggs. Considerable attention is devoted to the birds of the Santa Barbara Islands in 'Spring Notes from Santa Catalina Island,' on twenty-nine species, by C. H. Richardson, Jr., and 'Notes from San Clemente Island,' by C. B. Linton. The latter paper is an annotated list of fifty-eight species, based on observations made in 1907, and contains a record of the Harris Sparrow (*Zonotrichia querula*), apparently the second for the state. A third formal paper is that by A. P. Smith, containing some general notes on the birds of the Whetstone mountains, Arizona.

Two articles devoted to nesting habits of certain birds also deserve mention,—one on the Phainopepla, by Harriet W. Myers, and the other on the Great Blue Heron, by H. W. Carriger and J. R. Pemberton. Three text figures in the latter paper illustrate the unusual nesting-site of a colony of Herons near Redwood City, Cal. These birds, driven from their former breeding-place in the tops of some eucalyptus trees, constructed their nests on the ground far out in the marsh.

'Some Hints on the Preparation of an Oölogical Collection,' by R. B. Rockwell, may be read with profit by those interested in collecting eggs. In the editorial columns attention is called to the California Museum of Vertebrate Zoölogy, recently established at the University of California, at Berkeley, through the generosity of Miss Annie M. Alexander; and to the present status of the California Academy of Sciences in San Francisco. The collection of birds belonging to the Academy now numbers more than 11,000 specimens.

The May number stands out in strong contrast on account of its lack of illustrations. The only illustration is that of the nest of the Mexican Black Hawk in a brief article by G. B. Thomas, based on observations on this Hawk made in British Honduras. An important paper by J. E. Thayer and Outram Bangs, on the birds of Guadalupe island, indicates that three of the species peculiar to the island—

the Guadalupe Caracara, the Guadalupe Wren, and the Guadalupe Towhee—are now extinct. Swarth contributes 'Some Fall Migration Notes from [southern] Arizona,' on one hundred and nine species, and Linton continues his papers on the birds of the Santa Barbara islands, with 'Notes from Santa Cruz Island,' containing an annotated list of eighty-eight species. Among the shorter articles are those on 'A Migration Wave of Varied Thrushes,' by Joseph Mailliard, 'The Waltzing Instinct in Ostriches,' by F. W. D'Evelyn, and 'Three Nests of Note from Northern California,' by Harry H. Sheldon.—T. S. P.

Book News

WITHERBY & Co. request us to state that 'How to Attract and Protect Wild Birds—A Full Description of Successful Methods,' may be obtained from the National Association of Audubon Societies, 141 Broadway, New York City.

D. APPLETON & Co. announce for publication in November, 'Camps and Cruises of an Ornithologist,' by Frank M. Chapman. The work is based on its author's eight-seasons' field-work while gathering material and making studies for the "Habitat Groups" in the American Museum of Natural History, and will be illustrated by upward of 250 photographs.

RECENT publications by the Bureau of Biological Survey include 'Directory of Officials and Organizations Concerned With the Protection of Birds and Game, 1908,' by T. S. Palmer; a wall chart showing the 'Close Seasons for Game in the United States and Canada, 1908,' compiled by T. S. Palmer, and Henry Oldys; and 'Game Protection in 1909' by Henry Oldys; 'The Game Resources of Alaska,' by Wilfred H. Osgood; 'Does it Pay the Farmer to Protect Birds' (of which we shall write later) by H. W. Henshaw. The three last-named papers are from the 'year-book' for 1907. Copies of these publications may be obtained from the Bureau at Washington.

Bird-Lore

A Bi-monthly Magazine

Devoted to the Study and Protection of Birds
OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Edited by FRANK M. CHAPMAN

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Bird-Lore's Motto:

A Bird in the Bush is Worth Two in the Hand

THE time is approaching when the Committee of the American Ornithologists' Union will determine what changes, if any, are required in the common names of North American birds in the new 'Check-List.' We have invited and have received some correspondence on this important subject, but our contributors have, it seems to us, recommended more changes than it is desirable to make.

Granted that it would be possible to supply half our birds with more appropriate names than they now possess, if the present 'Check-List' name has been generally accepted, and is in common use, it should be retained. On the other hand, if the 'Check-List' name is not the one by which the species is generally known, the Committee should adopt the one most frequently applied to it. This rule, however, should be applied with discrimination, for it is not desirable to abandon terms in standing with people of education for the vernacular of the hunter. For example, 'Roseate Spoonbill' should not, in our opinion, give way to 'Pink Curlew,' by which name this bird is known in Florida. But 'Anhinga,' which must be explained whenever it is used outside an ornithological audience, might well be replaced by the commonly employed 'Water Turkey,' or 'Snakebird.'

In preparing the first edition of the 'Check-List' (1886), the Committee had many cases of this kind to act upon, and its decisions, on the whole, were made with excellent judgment. In some instances,

however, the public have not adopted the A. O. U. Committee's name, and, in the forthcoming edition of their work, it might be good policy for them to acknowledge their failure by adopting the current name of the species in question.

The 'Snowy Heron' (*Egretta candidissima*), as an aigrette-bearing bird, is just as much an Egret as the 'American Egret' (*Herodias egretta*) and is certainly more deserving the term than the 'Reddish Egret' (*Dichromanassa rufescens*) of the 'Check-List.' In Florida it bears the name Egret, in common with the larger white bird (*egretta*), and there seems to be abundant reason for changing 'Snowy Heron' to 'Snowy Egret' in the new 'Check-List.'

'Bartramian Sandpiper' is another name which the public has done well to reject. The case is complicated, for to adopt the vernacular 'Upland Plover,' would apparently place a Plover among the Sandpipers; but, if we are to have a book name, let us compromise on Upland Sandpiper and relieve the bird of its Bartramian handicap.

Personally, we should like to see the name 'Semi-palmated Plover,' by which no one but an ornithologist calls the bird, abolished for the more generally known and more descriptive 'Ring-necked Plover.' The fact that several species have ringed necks should not deprive us of the use of the name, while the 'Ring Plover' of our 'List' occupies too limited an area in America to be considered in this connection.

All the various species of 'Partridge,' which are invariably called 'Quail' by the people of the country they inhabit, should, we think, be called 'Quail;' the 'Green-crested Flycatcher' should be given its former name of 'Acadian Flycatcher,' the 'Leucostictes' should be known as 'Snow Finches,' Louisiana Tanager should become 'Western Tanager;' for obvious reasons, the 'Water-Thrush,' 'Northern Water-Thrush,' and the formal 'Wilson's Thrush' may well be abandoned for the more poetic and suitable 'Veery.'



GOLDEN-AND RUBY-CROWNED KINGLETS

Order—PASSERES
Genus—REGULUS

Family—SYLVIIDÆ
Species—SATRAPA AND CALENDULA

THE GOLDEN-CROWNED KINGLET THE RUBY-CROWNED KINGLET

By MABEL OSGOOD WRIGHT

The National Association of Audubon Societies

EDUCATIONAL LEAFLET NO. 34

When October comes, the fall migration is in full swing. The trees are full of the bustle of comings and goings, and the morning sun, that now gives little heat before eight o'clock, draws many night-travelers from their seclusion to preen and spread their feathers after a dew-bath in the grass. Aside from call-notes, more or less musical, there is an absence of real song, save in the case of the Meadowlark, White-throat or Song Sparrow, whose cheerfulness is unconquerable, and the murmurs of the young of the year, who are often impelled to try their voices before their first spring. As the birds of summer vanish, we turn eagerly to those that may be with us in the cold season,

Winter Birds and are divided technically into two groups—the Winter Residents and the Winter Visitants. We might naturally think that birds that can stand the rigors and changes of the winter, even in our middle states, must be of large size and powerful in wing; but is this always so?

No, quite the contrary. Of course, the resident Hawks and Owls are large, as is also the Crow; while the Flicker, Jay, Meadowlark, Waxwing, Crossbill and Robin are sizable; but how about the Purple Finch, Myrtle Warbler, Bluebird, Song Sparrow, Chickadee, Winter Wren and the Golden-crowned Kinglet?

The Kinglet's Size This Kinglet is third in the list of our three "least" birds, the measurements of the other two running thus: Ruby-throated Hummingbird, 3.75 inches in length, Winter Wren 4.06 inches, while the Golden-crowned Kinglet is 4.07 inches. The Ruby-throat leaves with the first warning of frost, but the Winter Wren becomes a familiar resident about wood-piles and brush-heaps, and the tiny Kinglet may be seen in all the coldest months.

How shall we know the Kinglets, crowned by their crests of flame and gold, or ruby? They have no conspicuous flight like the Kingbird, no azure coat like the Bluebird, or familiar call and ways like the Chickadee.

When, in early October, you see the shadow of a tiny bird of dusky olive plumage working industriously between you and the sky among the terminal twigs of an apple tree, or maybe a spruce, then watch out! The bird that acts and looks like one of the tribe of Warblers, so hard to identify in autumn, and has a Warbler-like voice, not only may be, but most likely is, a Kinglet.

Go as close as possible, and watch the restless head atop the fluffy ball of feathers. Does a heavy black band margin a yellow line that encloses a patch

of fiery orange on top of the bird's head? Then it is the male Golden-crowned Kinglet. If the patch is only black and yellow, then the bird is a female. If the bird *has two distinct white wing bars and a white eye ring*, and does not show the striped head markings, it is likely to be the Ruby-crowned, whose flaming, plain red crest, being partly concealed by olive feathers, is conspicuous only in certain lights. These two Kinglets, though so much alike in general appearance, have very distinctive individualities. Both species breed northward from the United States, and are, therefore, only with us as visitors, yet their special attributes belong to different seasons. It is for the exquisite spring song of the Ruby-crowned that we prize him; for, like a wandering minstrel, he sings his way from tree-top to tree-top along the northern route to his breeding haunts; while, though the call of the sprightly Golden-crowned is an almost insect-like chirp, its value lies in its cheerful winter companionship. Taking them separately, this Kinglet must have right of way as being the most easy of identification, not only from its brilliant crown, but from its animated little song *teezee—teezee—teezee*, given in an ascending key and ending in a sort of titter, half cry, half laugh. This performance is given constantly as the bird searches the smallest twigs for the insect food upon which its high vitality depends, for, aside from all esthetic qualities, both Kinglets are great consumers of the insects of the terminal shoots of orchards and forest trees, that larger birds can not reach.

The range of this little bird extends over North America from the Gulf states northward to the tree limit. Its general nesting haunts are from the "northern United States northward, southward along the Rockies into Mexico, and in the Alleghanies to North Carolina; winters from its southern breeding limit to Mexico and the Gulf States."

The observations that give the most detailed account of its nesting habits were made in Worcester county, Massachusetts, by Mr. William Brewster.*

Three nests in all were found; the first on June 13, when the outside was practically finished and the birds were working at the lining. On June 29 it contained nine eggs. Mr. Brewster's description, quoted freely, is as follows: "It was placed in a slender spruce on the south side, within two feet of the top of the tree, and at least sixty feet above the ground, suspended among fine, pendent twigs about two inches below a short, horizontal branch, some twelve inches out from the main stem, and an equal distance from the end of the branch. The tree stood near the upper edge of a narrow strip of dry, rather open woods, bordered on one side by a road and on the other by an extensive sphagnum swamp.

"The outside of the nest was composed chiefly of green mosses prettily diversified with grayish lichens, . . . the general tone of the coloring, however, matching that of the surrounding spruce foliage. The interior, at the bottom, was lined with delicate strips of inner bark and rootlets. Near the

*See The Auk, Vol. v, 1888, pp. 337-344.

top were feathers of the Ruffed Grouse, Hermit Thrush and Ovenbird, arranged with the points of the quills down, the tips rising slightly above the rim and curving inward, so as to form a screen for the eggs. The second nest was closely canopied by the spruce foliage, under which it was suspended, leaving hardly enough room for the parents to enter.

"The ground-color of the eggs varies from cream-white to a deep muddy cream-color. Over this are varied markings of pale wood-brown, these, in turn, being the background for sharper markings of lavender. In

The Eggs both nests the eggs were too numerous to find room on the bottom of the nest, and were *piled in two layers.*" [Incidentally, it would be interesting to know how the little birds manage to turn these nine or ten eggs so as to secure equable heat.]

"These nests were found by watching the birds while building; a task of no little difficulty in dense spruce woods where the light was dim, even at noon-day. Moreover, the movements of this little architect were erratic and puzzling to the last degree. . . . We finally found that her almost invariable custom was to approach the nest by short flights and devious courses, and, upon reaching it, to dash in, deposit and arrange her load in from two to four seconds and at once dart off in search for more."

You may expect to see the Golden-crown in numbers in the middle and eastern states almost any time after September 20 until Christmas, then sparingly until middle March, when the return of those who have roved farther south begins. By the first of May, at the latest, they will all have passed northward in advance of the general migration of Warblers.

I have many times seen them about my feeding-tree, where they hang upside down upon the lumps of suet with all the agility of Chickadees; while, upon one occasion, a Winter Wren, a Brown Creeper and the Kinglet all occupied characteristic positions upon the same lump of suet, feasting and chatting, as it seemed, in perfect harmony. This goes to prove that the remoter birds may be encouraged to stay about habitations if only proper food is within reach; while suet in large lumps, securely fastened so that birds may perch on it and peck at it as they would in quarrying insects and grubs from under bark, is the food universal for all insect-eaters.

The public rôle of the Ruby-crowned Kinglet is that of a songster pure and simple, though he is as industrious in his search for food as his little brother, and as clever at nest-building in the mountain fastnesses, sometimes at a height of nearly 8,000 feet. In fact, this nesting of the Ruby-crowned is conducted with such secrecy that we have but few and meager descriptions of it. Unlike his brother, we see the Ruby-crowned in a brief interval between middle April and May, and again for a month between late September and October. During both migrations, they are birds of the same class of thickets that Warblers love.

The Ruby-crowned Kinglet

The late Doctor Coues gives us one of the best descriptions of the ways of this Kinglet. He says: "To observe the manner of the Ruby-crown one need only repair at the right season to the nearest thicket, coppice or piece of shrubbery. These are its favorite resorts, especially in fall and winter; though sometimes, in the spring more particularly, it seems to be more ambitious, and its slight form may be almost lost among the branchlets of the taller trees, where the equally small Parula Warbler is most at home. We shall most likely find it not alone, but in straggling troops, which keep up a sort of companionship with each other. . . . They appear to be incessantly in motion,—I know of no birds more active than these,—presenting the very picture of restless, puny energy, making much ado about nothing.

"The Ruby-crowned Kinglet is one of our most wonderful songsters. During April and early May, the attentive listener can frequently hear the beautiful lay. The notes are clear, very loud and prolonged, full of variety and purity. This exquisite vocalization defies description; we can speak only in general terms of the power, purity and volume of the notes, their faultless modulation and long continuance."

Audubon says of it: "When I tell you that its song is fully as sonorous as that of the Canary-bird, and much richer, I do not come up to the truth, for it is not only as powerful and clear, but much more varied and pleasing."

But of many like descriptions of this wonderful song, that of Mr. Chapman is by far the most expressive: "The May morning when first I heard the Kinglet's song is among the most memorable days of my early ornithological experiences. The bird was in the tree-tops in the most impassable bit of woods near my home. The longer and more eagerly I followed the unseen singer, the greater the mystery became. It seemed impossible that a bird which I supposed was at least as large as a Bluebird could escape observation in partly leaved trees.

"The song was mellow and flute-like, and loud enough to be heard several hundred yards: an intricate warble, past imitation or description, and rendered so admirably that I never hear it now without feeling an impulse to applaud. The bird is so small, the song so rich and full, that one is reminded of a chorister with the voice of an adult soprano. To extend the comparison, one watches this gifted but unconscious musician flitting about the trees with somewhat the feeling that one observes the choir-boy doffing his surplice and joining his comrades for a game of tag."

Remember these tributes and, when the leaves grow yellow and fall away, watch for the Golden-crown among the upper twigs in the orchard; and, when the swamp maples redden and the beeches unfold their velvet paws, listen in the copses for the voice of the matchless Ruby-crown. Like all the smaller, elusive birds, the Kinglets have been known under various names given by the older ornithologists, who were not exact in family groupings and nomenclature. Golden-crested Wren and Golden-crested Tit are among these titles.

The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by WILLIAM DUTCHER

Address all correspondence, and send all remittances for dues and contributions, to the National Association of Audubon Societies, 141 Broadway, New York City

Notice of the Annual Meeting of the National Association of Audubon Societies

The annual meeting of the members of the National Association of Audubon Societies for the Protection of Wild Birds and Animals, for the election of six directors, to take the place of the following directors, viz., Abbott H. Thayer, Mrs. C. Grant La Farge, John E. Thayer, Frank M. Miller, Theodore S. Palmer and Ruthven Deane, Class of 1908, whose terms of office will then expire, and for the transaction of such other business as may properly come before the meeting, will be held at the American Museum of Natural History, Columbus avenue and Seventy-seventh street, in the Borough of Manhattan and City of New York, on the twenty-seventh day of October, nineteen hundred and eight, at two o'clock, P. M. At the close of the business meeting, Mr. William L. Finley, our northwest field agent, the well-known explorer and nature photographer, will give an illustrated lecture on the results of his summer work, entitled "On the Trail of the Plume-Hunters."—T. GILBERT PEARSON, *Secretary*.

A Valuable Book

The Association has received an advance copy of "How to Attract and Protect Wild Birds—A Full Description of Successful Methods," by Martin Hiesemann, translated by Emma S. Buchheim, with an introduction by Her Grace the Duchess of Bedford, President of the Royal Society for the Protection of Birds. This publication is a translation into English of the German work, which describes the methods devised by Baron von Ber-

lepsch, at the experimental station at Seebach, in the district of Langensalza, in Thuringia, the ancestral castle of the Berlepsch family since the twelfth century. The area used for experiments comprises about five hundred acres, of which nineteen acres are park, sixty acres are thickets (poplar and willow plantations), and four hundred acres are wood.

The methods used by Baron von Berlepsch for many years, and the successful results attained, are of such great value and of so great interest that the publication should be in the hands of every bird-lover in this country. The publication contains many cuts of bird-boxes, feeding-places, shelter-woods, and other hints of value.

The Association has sent an order to Germany for a complete outfit of nesting-boxes of various sizes and shapes, and also of food-sticks, food-houses and food-bells. It is hoped that these will arrive in time to be exhibited at the annual meeting of the Society, in October. As soon as Messrs. Witherby & Company, of London, the publishers, have the book ready for delivery, it will be on sale at the office of the National Association in New York.

What Birds Will Nest in Houses

The undersigned takes this opportunity to thank those who have responded to his request, in a previous issue of BIRD-LORE, for experience in attracting birds around houses, for use in the preparation of a pamphlet on this subject for the Audubon Society. He makes one more request regarding a special point. In this connection. He has found only one record of each of the following species nesting in bird-houses,—Screech Owl, Carolina

Chickadee, Tufted Titmouse, Crested Flycatcher, and no record of any of the Woodpeckers or Nuthatches using artificial houses for nesting. The undersigned will be very grateful to hear from any one who has had any experiences with the nesting of any of these birds around their homes.—GILBERT H. TRAFTON, *Clifton, N. J.*

Protection for Snowy Herons

The very important discovery made by Mr. Herbert R. Sass, that the Snowy Heron had reestablished itself in South Carolina, as reported on pages 160-162 of the cur-

for us to employ two wardens, as the colonies are so far apart that one warden cannot give them proper protection. Is there not some member of the Association or some reader of BIRD-LORE who will be willing to furnish the funds needed for purchase, rental and care? The numbers of Snowy Herons that are still left in the United States is so small that it is extremely important that each of the few scattered colonies that remain shall receive the most careful protection possible.—W. D.

A New Audubon Society

On August 11, 1908, a meeting was held at Wichita, Kansas, of representative business and professional men and women, for the purpose of organizing an Audubon Society in the state of Kansas.

A committee on constitution and by-laws was appointed, and Mr. Richard E. Sullivan, of the United States Weather Bureau, was elected president, and Mr. Frank E. McMullen, secretary.

The organization of this society closes up a gap in our map showing states having Audubon Societies, and we trust that, before the end of the next legislative session in Kansas, we shall be able to report that this state also has adopted the model law protecting non-game birds.

Progress in South Dakota

For the first time in years, the birds upon the Federal reservations of South Dakota have had a chance to rear their young. At the request of Charles E. Holmes, President of the South Dakota Audubon Society, President Roosevelt issued, June 11, 1908, the following regulations governing the killing or taking of song- or game-birds on all of the reservations in the state:

"Under the authority conferred by section 463 of the Revised Statutes of the United States, the following regulations to govern the killing or taking of song- or game-birds within the limits of the Lower Brule, Crow Creek, Standing Rock and



GREAT BLUE HERON

Flashlight by Wetmore Hodges, on Conway Lake, Mich.

rent volume of BIRD-LORE, will entail upon this Association a very considerable expense, which will have to be provided for before the breeding season of 1909. While the problem of safeguarding these two important colonies will not be a difficult one, yet it will necessitate a considerable expenditure of money, as it will be necessary to either lease the breeding grounds or purchase them. The Federal Government does not own any land in the thirteen original states, and, therefore, cannot make reservations in any of them. In addition to the amount necessary for purchase or rental, it will also be necessary

Cheyenne River, Indian Reservations, South Dakota, are hereby promulgated:

"All Indians, including mixed bloods, are forbidden to shoot or kill any Prairie Chicken, Pinnated Grouse, Sharp-tailed Grouse, Ruffed Grouse, Woodcock, or Quail between the first day of January and the first day of September following, or any song-bird or insect-eating bird at any time, excepting Crows, Blackbirds and Sparrows.

"All Indians, including mixed bloods, are forbidden to shoot or kill any Wild Duck, Wild Goose, Brant, or Wild Crane, between the first day of May and the first day of September following, or to shoot or kill any Plover or Curlew, between the fifteenth day of May and the first day of September following.

"It is hereby forbidden to kill or shoot at any time any Wild Duck, Goose, or Brant, with any swivel gun, or other gun, except such as is commonly shot from the shoulder, or in hunting such birds to make use of any artificial light or battery.

"It is hereby forbidden to use or employ any trap, snare, net, or bird-lime, or medicated, drugged, or poisoned grain or food, to capture or kill any of the birds mentioned above.

"It is also forbidden to wantonly destroy any nests or eggs of any song- or game-birds.

"During the open season, only Indians residing on the reservation will be permitted to shoot or kill game-birds thereon, and then only for the purpose of subsistence.

"The Secretary of the Interior is hereby directed to cause to be issued such orders or instructions to the United States Indian agents, or other persons in charge of the above-named reservations, as may be necessary to carry out these regulations."

Mr. Holmes says: "Spring shooting has got to go. We shall settle that at the next session of the legislature. Our game laws are being enforced better than ever, and we are gaining in membership and accomplishment right along. A book upon birds has been placed in very many of the

school libraries of the state, probably 50 per cent of them, and will go into most of the others."

Massachusetts Notes

On July 10, 1908, I visited the now well-known colony of Least Terns at Katama Bay, in company with the Rev. Albert Hylan and Deputy Fish and Game Commissioner Savery. This colony, which was believed to be the last one remaining in New England, has moved, this year, toward the point where the beach is low, and the tides sometimes sweep over it. Mr. Savery tells me that there were between forty and fifty birds there in the spring, and that most of the birds had eggs; but, during a high June tide, the sea swept the beach, and the birds were obliged to nest again. We counted twenty-four birds here at one time, and were satisfied that there were fully thirty, as others were nesting further up the beach. Twelve nests were found, with one to three eggs each, and two young just hatched were seen. Six eggs were found in each of two nests, but possibly they were placed there by some of the many visitors at the beach. Cat tracks were seen, and evidently the birds are much disturbed. Probably their eggs and young are trodden upon by people who visit the beach. A native boatman informed me that city boys, who go gunning on the beach in July and August, shoot the mother Terns as they hover over their helpless young. Apparently this colony of Least Terns is diminishing in numbers; it should be given better protection. If the beach were purchased and a warden kept there through the summer to prevent shooting, and to kill maulauding cats, no doubt the number of birds would increase.

I visited many islands and beaches during the month of July, and, judging from my experience, the Least Terns are now slowly increasing in numbers in Massachusetts. A few birds were breeding in each of several localities, and two colonies of about fifty birds each were seen. All told, 173 birds were counted, and possibly

there are 200, as some were probably away fishing during my brief visits. This estimate does not include the young this year, as they are such adepts at hiding that it was impossible to find them all during my short stops.

Under protection, the Common Tern and the Roseate Tern are increasing annually in numbers, and are now breeding again on coasts and islands whence they were driven years ago by the feather-hunters. Conservative estimates of the number of birds seen at the principal islands this year, give Muskeget 10,000; Penikese, 7,000; the Weepectets, 5,000; Ram Island, 1,200; Gull Island, 700; Skiff's Island, 300. It is impossible to estimate the number of Roseate Terns as compared with the Common Tern, but the largest numbers of Roseate Terns were seen on Muskeget and Gull Island. The Muskeget Terns are well protected by a resident warden during the breeding season, but there are cats at the life-saving station there. Dr. Parker, Superintendent at the Massachusetts State Leper Hospital at Penikese, protects the birds there; although he considers them a great nuisance, as they nest in the mowing fields and the corn fields, preventing seasonable cutting of the grass and requiring an extra man, while cultivating corn, to hold the horse, which is continually frightened by the angry birds. Common Terns are now breeding along the coast of Martha's Vineyard, on islands in Buzzard's Bay, about Cape Cod, and even along the North Shore.

The few Laughing Gulls that were saved from the feather-hunters by the protection afforded them on Muskeget have so increased that there are now at least one thousand birds in two colonies there. A few were seen on Gull Island, Chappaquidick, Martha's Vineyard and Monomoy, but no eggs or young were found except on Muskeget. A few Herring Gulls appear to stay on Skiff's and Gull Islands, but do not breed.

There was considerable mortality among the young of the Common Terns everywhere; some had their heads torn

off by cats; others died of disease; on Penikese, some were trampled by cattle and sheep and a few had been shot, but, nevertheless, the steady increase of the birds is a great object lesson in the efficacy of bird-protection.

During my visit to Katama Bay I saw only ten adult Piping Plover actually breeding, and the entire number seen on the Massachusetts coast in July did not exceed twenty birds. Very small young birds were seen in July and August. The laws of Massachusetts still allow the shooting of these birds in these months; and, while such laws are allowed to remain on the statute books, the only possible hope for the salvation of the birds lies in purchasing their breeding grounds and protecting them there.—E. H. FORBUSH.

Notes from North Carolina

The storm which recently visited the North Carolina coast, extending over a period of five days, from July 28 to August 1, was more destructive to the breeding sea-birds than any storm of which we have had previous experience in that territory. Coming, as it did, at the very height of the nesting season, the loss of eggs and young birds newly hatched was truly appalling. The six, low, sandy islands occupied by the birds were completely swept by the waves, and all the eggs and young birds, as yet unable to fly, were carried away. N. F. Jennette, of Cape Hatteras, who is the chief warden of the territory, estimates the loss at not less than 10,000 young birds and eggs.

Early in the season, the colonies had been disturbed by a storm which had so delayed them that only a few hundred young birds were able to fly when the storm of July 28 came. The bodies of more than one thousand young Terns were washed ashore near Cape Hatteras, and Warden Jennette reports that for days the old birds hovered over the bodies of their offspring, alighting among them and bringing them food. The storm also damaged the islands; for example, over one-third of Royal Shoal is now below

sea-level. Our patrol boat "The Dutcher," was also severely damaged, and, as a result, has since been out of commission most of the time. A careful estimate of the number of sea-birds actually raised the past summer is as follows:

Royal Terns	400
Wilson's Terns	700
Black Skimmers	650
Laughing Gulls	750
Least Terns	566
Cabot's Terns.....	25

—
3,091

—T. GILBERT PEARSON.

RESERVATION NOTES

Tortugas Reservation

At last we have a good colony of nests of the Least Tern on both the northern and southern ends of Loggerhead Key.

The rats are so reduced that I cannot catch more than one or two each week. They seem to be unable to resist a guillotine trap baited with smoked herring.

I doubt if the birds will lose any of their young, and, being now empowered to protect them, I hope to have a fine colony here in a few years.—ALFRED G. MAYER, July 13, 1908.

Inspection of Breton Island Reservation, Louisiana

July 22.—Visited Barrel Key, the easternmost point of a shell reef south of Creole Gap. About seventy-five Least Terns, flying over the Key, were observed here, and two newly hatched birds of this species were found on the broken shell. Captain Sprinkle had previously visited this Key and estimated the number of birds at about 200 adults, and had found several young birds on the Key.

At noon we visited Martin Island Key, and found approximately 400 adult Skimmers and about 100 nests, averaging three eggs, or young, to each nest. The proportion of young to eggs was about one to three. Most of the young were newly hatched, and the sun caused a

heavy mortality among them; at least 25 per cent of these appeared to have died in this way.

July 23.—Spent the day at Southwest Harbor Key. Young Royal Terns, three to four weeks old, and just learning to fly, were massed together on the beach. There were about 2,500 of these. The Cabot's Terns were all on the wing, and the majority of those present appeared to be adults. The adult strength of this colony at the beginning of the season, according to Captain Sprinkle's estimates, was about 2,500 each of Cabot's and Royal Terns. About 1,000 adult Royal Terns were present at this time.

July 24.—Left anchorage at Southwest Harbor Key at 7 A. M. Laid out a direct course to Battledore Island, due southwest, wind east; arrived at 1.30 P. M. Of Black Skimmers, adults on the wing, estimated the number at about 2,500. There were probably 1,000 young Skimmers about ready to fly, and 300 Skimmer nests averaging two eggs, young, or young and eggs, to the nest.

About 1,000 adult Laughing Gulls present and 2,000 young, most of them able to fly. There was an equal number of adult and young Royal Terns, most of the latter about ready to fly.

The number of Caspian Terns was not over twenty; several were guarding nests containing either eggs or newly hatched young. Cabot's Terns had nearly 500 eggs and young. There were probably 300 adults present. Louisiana Herons had nearly completed incubation, while many large nestlings were found. The total number of adults and young was estimated at 500.

Forster's Terns had practically finished their nesting, and few were seen about the island.

After exploring Battledore Island, we sailed to Hog Island, and landed on the easternmost of the three parts into which it has been cut. There were few birds here, but Captain Sprinkle had noted many at the beginning of the season, and this island, with protection, will doubtless prove a valuable nesting-place.

July 25.—After an all-day sail through squalls and light winds, we made Dutcher's Island an hour before sundown. An examination of this reservation showed that all the Louisiana Herons had left their nests. Of old and young there were fully 4,000. There were about twenty Snowy Herons on the island. There were about 1,500 Gulls about the island at the time of this visit.

July 26.—Stormy all day; fearing very heavy weather outside, Captain Sprinkle advised returning to Pass Christian, where we arrived at 2.30 P. M., having left Dutcher's Island at 7 A. M., and being unable to visit Little Deadman Islands, 10 to 55 in Eloi Bay, Islands 4 to 9 in Morgan Harbor, Mitchell's Key, Sam Holmes, Brush and Sundown Islands. Estimates made by Captain Sprinkle of the number of birds present on these various islands at the time of his previous inspection are given below:

July 15.—*Sundown Island*: 500 Laughing Gulls' nests, eggs all hatched; 100 Foster's Terns' nests, young birds all flown.

July 15.—*Brush Island*: 200 Laughing Gulls' nests, eggs all hatched; 500 Skimmers' nests, eggs all hatched.

July 16.—*Sam Holmes Island*: 1,000 Laughing Gulls' nests, eggs all hatched.

July 16.—*Mitchell's Key*: 200 Skimmers' nests, eggs all hatched; 100 Laughing Gulls' nests, eggs all hatched.

July 16.—*Islands 4 and 5, Morgan Harbor*: 300 Louisiana Herons' nests, eggs all hatched, young commencing to fly; 2,000 Laughing Gulls' nests, eggs all hatched; 50 Grosbeaks' nests (Black-crowned Night Heron), eggs all hatched; 75 Forster's Terns' nests, young flying.

July 16.—*Islands 6 to 9, Morgan Harbor*: 12,000 Laughing Gulls' nests, eggs all hatched; 1,300 Louisiana Herons' nests, young flying; 300 Forster's Terns, young flying; 12 Snowy Herons' nests, young all grown.

July 17.—*Islands 10 to 15, Eloi Bay*: 4,700 Laughing Gulls' nests, eggs all hatched.

July 17.—*Little Deadman's Island*:

200 Laughing Gulls' nests, eggs all hatched;
25 Caspian Terns' nests, eggs all hatched.

Summary of birds bred on islands of Breton and Louisiana Audubon Reservations, 1908:

Black Skimmer—

Martin's Island Key	225
Battledore	1,600
Mitchell's Key	200
Brush Island.....	500

Laughing Gull—

Battledore	2,000
Dutcher's Island	1,500
Little Deadman's Island	500
Islands 10 to 15, Eloi Bay.....	10,000
Island 4 and 5, Morgan Harbor	4,000
Islands 6 to 9, Morgan Harbor	25,000
Mitchell's Key	200
Sam Holmes' Island	2,000
Brush Island.....	400
Sundown Island.....	1,000

Royal Tern—

Southwest Harbor Key.....	2,500
Battledore	2,000

Cabot's Tern—

Southwest Harbor Key.....	2,500
Battledore	500

Caspian Tern—

Battledore	20
Little Deadman	25

Forster's Tern—

Sundown Island.....	125
Islands 4 and 5, Morgan Harbor	100
Islands 6 to 9, Morgan Harbor	400

Least Tern—

Barrel Key	50
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Snowy Heron—

Dutcher's Island	20
Island No. 7 (Job's Island).....	20

Black-crowned Night Heron—

Islands 4 and 5, Morgan Harbor 200
 Dutcher's Island 20

220

Louisiana Heron—

Battledore 200
 Dutcher's Island 2,500
 Islands 4 and 5, Morgan Harbor 1,200
 Islands 6 to 9, Morgan Harbor 5,000

8,900

H. H. KOPMAN, Field Agent.

Three New Reservations

During the month of August, President Roosevelt, at the request of this Association, issued orders establishing three new reservations; one to be known as the Key West Reservation, the application for which was based upon a report made by Capt. Charles G. Johnson, keeper of the Sand Key Light Station, near Key West, Florida.

The applications for the Klamath Lake and Lake Malheur Reservations were based on the reports of our field agent, Mr. William L. Finley, and his associate, Mr. Herman T. Bohlman, a portion of which was published in *BIRD-LORE*, vol. viii, 1905, page 336 and the result of a trip they made during the present season as the representatives of this Association.

"Our start was made from Portland, Oregon, and the entire trip between that city and the Malheur Lake region was made by automobile, over a thousand miles being covered during the trip. This was necessary, as the lake is 135 miles from the nearest railroad station. A canvas boat was used on the lake, as it is very shallow, the average depth being not over three feet. This region, beyond question, is the most promising of the known fields for the protection and preservation of water-fowl and several other birds, that exist in the United States. The water surface in the proposed reservation covers an area of about 120 square miles. Many thousands of water- and shore-birds breed annually, and countless other thousands, including swans, use the lakes as resting- and feeding-places during the spring and fall migrations. Among the breeding birds are Canada Geese, of which over a thousand young birds were counted within the distance of one mile along the shore, many species of Wild Ducks, Ring-billed, California and other Gulls, White Pelican, Farallone Cormorant, Caspian, Black and Forster's Terns, Eared Grebe, White-faced Glossy Ibis, Great Blue and Night Herons, Coot, and many smaller shore-birds. Many large colonies of the species named were discovered.

Inspection of East Timbalier Reservation, Louisiana, August 3, 1908

Black Skimmer.—Though adults of this species, numbering fully 7,500, were present on the island, not a single young bird was found, and the nests during the latter part of the season, at least, had evidently been disturbed.

Laughing Gull.—At least 35,000 birds of this species were present, and a large proportion of these were young, just learning to fly. The crowding of the nests and the abundance of the young were almost incredible.

Louisiana Heron.—Nearly all of this species had left, but former warden, W. H. Oliver, told me that a very large number of this species had been bred on the island, probably as many as 10,000.

Royal Tern.—About 1,000 adults and a few young on the beach almost ready to fly were noted.

Least Tern.—A few were seen about the island, and Mr. Oliver was sure the species had bred there.

Snowy Heron.—About ten were seen on the island, and Mr. Oliver reported that about forty of this species, as well as some of the Black-crowned Night Heron had been bred there.

Brown Pelican.—A large number—1,500 to 1,800—were feeding on the spits and bars. None had nested on the island.
 —H. H. KOPMAN, Field Agent.

"Until a few years ago, thousands of Snowy Herons made this their summer home, but we saw *only one bird*. The plume-hunters are responsible for the disappearance of this beautiful species; they killed in the summer of 1886 enough birds to produce \$8,000 worth of plumes. The slaughter was continued in 1887, 1888, and 1889, and as high as \$400 a day was realized. When we visited Klamath county in 1905, we thought that the Grebe-skin traffic had been practically stopped; however, we have facts now to show that plume-hunters have been at work continually since, and have been shipping plumage direct to New York. We have questioned many of the old settlers and others as to the abundance of water-fowl, and we find them plentiful yet. They count Ducks, Geese, and Swans by acres here, not by numbers, during the migratory period, but it is the unanimous opinion that the numbers do not compare with even six or eight years ago. The birds are going, and there is no question about it. *We must have a good, big reserve down here.* It will make the most important reserve in the West, and, with Klamath reserve, will equip Oregon and the Pacific coast to preserve the water-fowl."

The three new reservations just set aside by President Roosevelt will necessitate a very large increase in our outlay for wardens' service. For the Key West reservation, it will only be necessary to employ a guard from three to four months, covering the breeding period, unless further investigation shows that the Keys are used as a bird resort, when the warden would have to be employed for a longer period. At Klamath Lake Reservation, it will be necessary to employ one good man with a first-class power-boat, by the year. To properly guard Malheur Lake Reservation will take at least two good men, and possibly three. Lakes Malheur and Harney are so shallow that an ordinary power-boat cannot be used, and the wardens must depend on row-boats. Mr. Finley suggests that it might be possible

to use a small stern-wheel boat. One man cannot guard one hundred and twenty square miles of territory, when he has to depend on a row-boat for transportation.

These two reservations have been such a mine of wealth, in the past, to plume-hunters and market-shooters that they are not going to abandon their illegal traffic without a desperate struggle. It will, therefore, be necessary for this Association to select not only men of the very highest character and intelligence, but those who have the hardihood to fill the position. Plume-hunters and market-shooters in that section are law-breakers, and, when cornered, rarely hesitate to shoot, even though a human life is the sacrifice. This Association now has an opportunity to create an ideal wild-bird breeding-place, probably the greatest in the United States. To do it, however, is going to entail a large expense, which must be provided for. At the present time, the resources of the Association are strained to the utmost limit, and, therefore, the money to properly guard the new and greatest of our reservations must be furnished by new people.

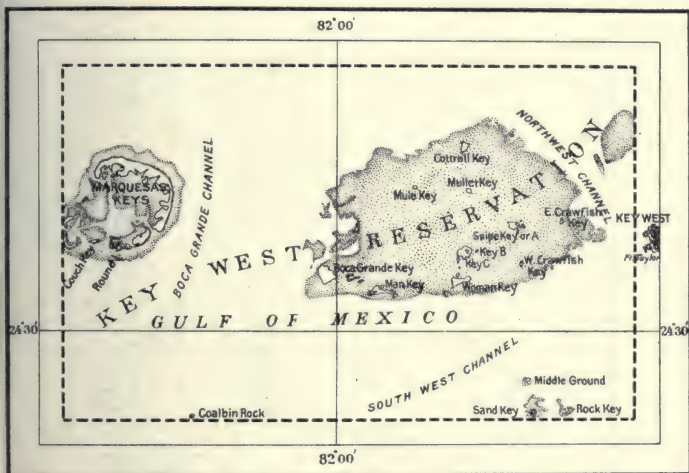
The sportsmen of the country should consider it a duty as well as a privilege to furnish means to guard these great breeding and feeding grounds from market-hunters. The public ought to be interested in the economic as well as the esthetic aspect of the case, and should willingly furnish all the financial support the Association needs. Funds are wanted at once, as the wardens should be on the ground at this time, in order to prevent shooting during the present autumn and the early winter, when the birds are on the southward migration. The question is often asked, "How can I give wisely." No wiser or greater benefaction can be proposed than to give to this Association a large sum, to be known as the Warden Fund, the interest from which to be used in perpetuity to pay the salaries of the brave men who spend months in loneliness and hardships to guard the birds of our land from ruthless men.—W. D.

KEY WEST RESERVATION

For Protection of Native Birds

FLORIDA

*Embracing all Islands segregated
by broken line and designated
"Key West Reservation"*



DEPARTMENT OF THE INTERIOR
GENERAL LAND OFFICE

Fred Dennett, Commissioner

Executive Order

It is hereby ordered that all keys and islands of the Florida Keys group, between latitude $24^{\circ} 27'$ and $24^{\circ} 40'$ north, and longitude $81^{\circ} 49'$ and $82^{\circ} 10'$ west from Greenwich, as the same are shown upon coast survey chart No. 170, and located within the area segregated by the broken line shown upon the diagram hereto attached and made a part of this order, are hereby reserved and set aside for the use of the Department of Agriculture as a preserve and breeding ground for native birds. This reservation is subject to, and is not intended to interfere with, the use of "Marquesas Keys" for life-saving purposes, reserved by Executive Order of March 12, 1884, nor with the use of "Man Key" and "Woman Key," reserved for naval purposes by Executive Order of June 8, 1908; nor is it intended in any manner to vacate such orders. This reservation to be known as Key West Reservation.

[No. 923]

THEODORE ROOSEVELT.

The White House, August 8, 1908.

KLAMATH LAKE RESERVATION

For Protection of Native Birds

OREGON AND CALIFORNIA

Embracing all islands in Lower Klamath Lake and all Marsh and Swamp Lands in Tps. 39, 40 and 41 S. Rgs. 8 and 9, and Tp. 41 S. R. 10 all East of Willamette Mer. Ore. and in Tps. 47 and 48 N. Rgs. 1, 2 and 3 East of Mt. Diablo Mer. Cal. segregated by broken line and designated "Klamath Lake Reservation"



DEPARTMENT OF THE INTERIOR

GENERAL LAND OFFICE

Fred Dennett, Commissioner

Executive Order

It is hereby ordered that all islands situated in Lower Klamath Lake, and the marsh and swamp lands unsuitable for agricultural purposes in townships thirty-nine, forty, and forty-one south, ranges eight and nine, and township forty-one south, range ten, all east of the Willamette Meridian, Oregon, and in townships forty-seven and forty-eight north, ranges one, two and three east of Mount Diablo Meridian, California, and situated within the area segregated by a broken line, as shown upon the diagram hereto attached and made a part of this order, are hereby reserved and set aside for the use of the Department of Agriculture as a preserve and breeding-ground for native birds. The taking or the destruction of birds' eggs and nests, and the taking or killing of any species of native bird for any purpose whatever is prohibited, and warning is expressly given to all persons not to commit within the reserved territory any of the acts hereby enjoined. This order is made subject to and is not intended to interfere with the use of any part of the reserved area by the Reclamation Service acting under the provisions of the act approved June 17, 1902, or any subsequent legislation. This reserve to be known as Klamath Lake Reservation.

— THEODORE ROOSEVELT.

The White House, August 8, 1908.

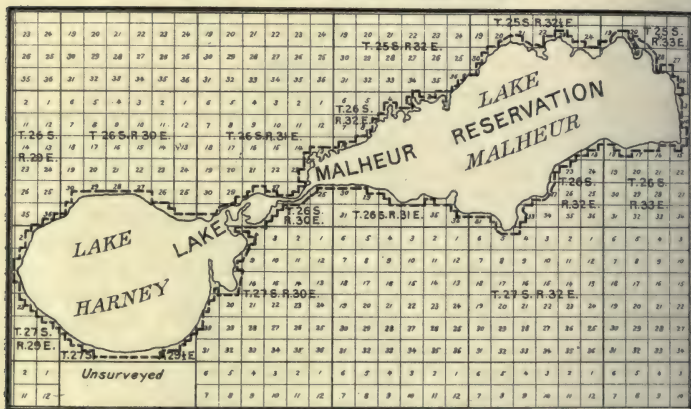
[No. 924]

LAKE MALHEUR RESERVATION

For Protection of Native Birds

OREGON

Embracing all least subdivisions touching the shore lines of Lakes Malheur and Harney and their connecting waters in Tps. 25 S. Rgs. 32, 32½ and 33, Tps. 26 S. Rgs. 29, 30, 31, 32 and 33, and Tps. 27 S. Rgs. 29, 29½, 30 and 32 all east of Willamette Meridian, Oregon, segregated by broken line and designated "Lake Malheur Reservation"



DEPARTMENT OF THE INTERIOR

GENERAL LAND OFFICE

Fred Dennett, Commissioner

Executive Order

It is hereby ordered that all smallest legal subdivisions which touch the shore-line of Lakes Malheur and Harney and the streams and waters connecting these lakes in township twenty-five south, ranges thirty-two, thirty-two and one-half and thirty-three; township twenty-six south, ranges twenty-nine, thirty, thirty-one, thirty-two and thirty-three; township twenty-seven south, ranges twenty-nine, twenty-nine and one-half, thirty and thirty-two, all east of the Willamette Meridian, Oregon, together with all islands and unsurveyed lands situated within the meander lines of said lakes and connecting waters, as segregated by the broken line shown upon the diagram hereto attached and made a part of this Order, are hereby reserved, subject to valid existing rights, and set aside for the use of the Department of Agriculture as a preserve and breeding-ground for native birds. The taking or destruction of birds' eggs and nests, and the taking or killing of any species of native bird for any purpose whatsoever, except under such rules and regulations as may be prescribed by the Secretary of Agriculture, is prohibited, and warning is expressly given to all persons not to commit within the reserved territory any of the acts hereby enjoined. This reserve to be known as Lake Malheur Reservation.

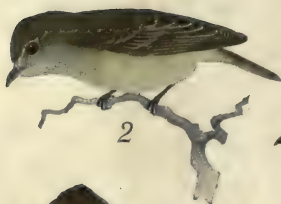
[No. 929]

THEODORE ROOSEVELT.

The White House, August 18, 1908.



1



2



3



4

BRUCE HORSEFALL
1908

1. DERBY FLYCATCHER
2. BEARDLESS FLYCATCHER

3. OLIVE-SIDED FLYCATCHER
4. COOES'S FLYCATCHER

Bird = Lore

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No. 6

The Sea Birds' Fortress

By A. C. BENT

WAY off in the middle of the stormy, fog-bound Gulf of St. Lawrence stands lonely Bird Rock, twenty-five miles north of the Magdalen Islands and sixty miles from Cape Breton.

It forms the northeastern end of a chain of dangerous ledges, lying in the path of vessels passing in and out of the St. Lawrence River, and is important enough to be protected by a first-class lighthouse. Its red sandstone cliffs rise for a hundred feet or more straight up from the sea, and even on the smoothest day the waves thunder against its base, as they rise and fall with the ocean swell.

The only human inhabitants of this isolated rock are the lighthouse keeper and his family. They are visited twice a year by the government supply boat, bringing provisions, newspapers and mail, but, aside from this, they seldom have any communication with the outside world unless some stray fisherman lands there from necessity, or some wandering bird student comes along to study the sea birds in their summer home.

During the long winter nights, when the gulf is closed to navigation, they have nothing to do, no light to maintain and no fog whistle to manage. Yet they say they feel their loneliness even more in the summer when they longingly watch every passing sail, hoping for visitors, but are generally doomed to disappointment. No wonder that they welcome the return of their feathered friends in the spring, and no wonder they were glad to see us.

We had engaged an experienced mariner, the owner of a staunch schooner and the hero of many a successful smuggling trip, to take us from the Magdalen Islands to Bird Rock on a certain date; but on our arrival at Grand Entry, the northernmost port, we found, to our disgust, that he had just gone off on a three weeks cruise elsewhere, without the slightest consideration of his promise to us. The only other available craft, fit to make the trip, which is a dangerous one at best, was a sea-going tug which, on investigation, we found was hopelessly disabled. We were face to face with the two alternatives, to give up the main object of our trip and go home beaten, or to make the trip in an open boat, a hitherto unaccomplished feat, except by a few hardy fishermen. But we secured the services

of a daring, young lobster fisherman, strong, hardy and experienced, who had weathered the storms of twenty-four hard northern winters, and who volunteered to take us, as soon as a favorable opportunity arrived. After days of fog, rain, storms and gales, all too frequent on that coast, the looked-for opportunity came when a light westerly wind had smoothed down the sea after an easterly blow, and we started in his seaworthy little boat, seventeen feet long, carrying two small sprit-sails. Though we could plainly see Bird Rock, twenty-five miles away, a red spot on the northern horizon, prudence suggested that we sail first to Bryon Island, only twelve miles away, where we could find a safe harbor, in case of necessity, and push on to Bird Rock the next day, if conditions were



EAST END OF BIRD ROCK FROM THE SEA

favorable. But we were persuaded to change our minds by the "King of Bryon Island," a venerable patriarch, the owner of the island, and a veritable monarch of all he surveys, for he controls the most valuable lobster-fishing rights of that region, as well as the destinies of the fishermen; he would like to have kept us over night, with a view to interesting capitalists from the states in the purchase of his profitable estates, but with true regard for our interests he advised our pushing on that night, as he thought it would blow a gale in the morning, and experience proved that he was right. So, laying in a stock of bread and a few bottles of water, we started at 5:30 that night for the last leg of our journey. It was well that the sea was smooth, for to land on that rugged Rock is bad enough at any time, and when there is any sea running it is impossible.

It seemed a long twelve miles as we plied the oars to help us along in the

light breeze, and the sun was fast sinking to the horizon, illuminating the great red cliffs of Bird Rock, lined with white rows of nesting Gannets; we were still some distance from it at sunset, and we were not anxious to pick our way among its dangerous rocks after dark. But our skipper was equal to the task when the exciting moment came; as the great cliffs towered above us in the moonlight, we saw a lantern coming down the ladder to show us where to land, and we ran in among the thundering breakers; there was a crash which brought us to our feet in terror, as we struck an unseen rock, but the next wave carried us over it and landed us among the rocks and flying spray. We were overboard in an instant, struggling in the surf, for the boat was rapidly filling, as wave after wave broke over us. A few moments of rapid work served to unload our baggage and attach a stout line to the boat, the signal was passed aloft, and the powerful steam winch above hauled her up high and dry. We then had time to shake hands with our genial host, the keeper of the lighthouse, who had been watching us ever since we left Bryon Island. Loading our baggage in the crate to be hoisted up, we climbed up the long ladders, among clouds of screaming seabirds, over a hundred feet to the top of the rock, where we found a hearty welcome awaiting us from Captain Bourque and his family. No doubt they were glad to see us, for we were the only people who had landed on the rock since last November, excepting some fishermen who visited them in May. It is a lonely life they lead, but they are brave and cheerful souls, and know how to make the best of the surroundings. They live well in spite of the fact that their market-man calls but twice a year. Of course, there were many questions to be asked and much news to be discussed, for which their eager minds were hungry. After supper the festivities began; a graphophone was brought out and a whole trunk full of songs and other music reeled off; one of the girls could play the accordion, which did duty as an orchestra while the rest of us danced, sang and made merry well into the night. It was a great event for them, and we almost forgot that we had come to photograph birds.

But the morning found us out bright and early, moments were golden and not to be wasted in sleep, the wind was blowing a gale, as predicted, and clouds of seabirds were drifting about the rock in a bewildering maze, ten thousand of them in all. There were great white Gannets sailing on long, powerful wings tipped with black, clouds of snowy Kittiwake Gulls hovering in the air, hundreds of swift-winged Murres and Razor-billed Auks darting out from the cliffs, and quaint little parties of curious Puffins perched on the rocks. There was a constant Babel of voices, the mingled cries of the varied throngs, deep, guttural croaks and hoarse grunts from the Gannets, a variety of soft purring notes from the Murres, and sharp piercing cries from the active Kittiwakes, distinctly pronouncing the three syllables for which they are named, as if beseeching us to "keep away" from their precious nests.

Climbing down the ladders to one of the broader ledges, I fired away plate after plate, with a 'Reflex' camera, at the constant stream of Gannets floating

by on broad and powerful wings, riding on the gale without an effort, one of Nature's triumphs in the balancing of forces. I surprised one old fellow fast asleep on the ledge, with his head tucked under his wing; and carried him to the top of the cliff where we could study him more closely. Nearly all the broader ledges were white with nesting Gannets, sitting as close as they could sit on their crude nests of kelp and rockweed, each bird covering one, large, dirty egg, origi-



GANNETS ON THEIR NESTS

nally white but now stained with the red mud from the sandstone rock. They live peaceably enough among themselves, but their awkward movements result in many broken eggs, and they are far from neat in their habits. Carelessness and lack of neatness are characteristic of all the Pelican family, to which the Gannet belongs, and must indicate a low order of intelligence, for birds as a rule are very neat and keep their nests scrupulously clean.

The Gannets show their lack of intelligence in other ways; their brains are very small in proportion to their size, and they are very stupid birds, gawking at the intruder with a most helpless and idiotic expression, or stumbling over each other in their efforts to escape, often rolling the eggs out of the nests in their attempt. How different they are in this respect from the keen-witted Ruffed Grouse, who springs suddenly into the air, covering her eggs as she leaves, and dodging out of sight in an instant. No wonder the Gannets have been clubbed to death on their nests by the fishermen in search of bait, until they are well nigh exterminated from all but the most inaccessible cliffs!

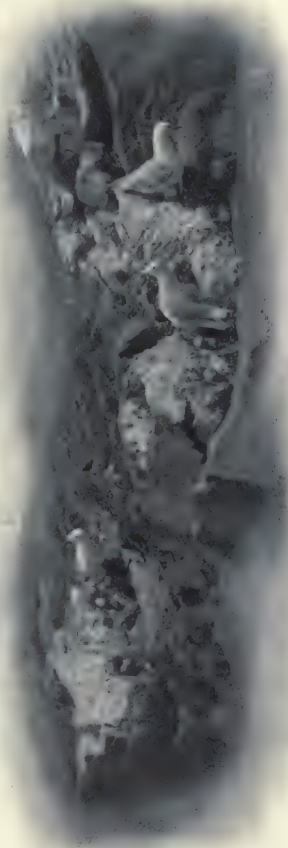
The beautiful little Kittiwake Gulls are birds of another feather, and form one of the most attractive features of Bird Rock. They are cliff-dwellers indeed,

for their nests are scattered all over the perpendicular face of the frowning cliff; every available little ledge or shelf is appropriated by them, and it is remarkable to see how narrow a shelf will serve to support their nests of seaweed; they must be securely built to support the weight of parents and young on such an apparently insecure foundation, and at such a dizzy height above the dangerous rocks and thundering surf. But they seemed to be successful in hatching their two, or sometimes three, speckled eggs and raising the tiny gray balls of down to maturity. A swing over the cliff in the crate was necessary to see them at close quarters, and a most interesting hour was spent in this way.

Standing securely in the stout box we were lifted from the ground, the long arm of the derrick swung outward into space, and we were lowered gradually down the face of the cliff, a novel and delightful way of calling on the birds that were nesting on its ledges.

At first a startled cloud of Gulls flew out and circled about us, protesting that we "keep away," but they soon settled down again on their nests, where we photographed them at our leisure. They were confiding little fellows, and would sit quietly on their little shelves within a few feet of us, turning their beautiful snow-white heads to look at us, but showing no signs of fear. They were the daintiest birds of all with their delicate pearl-gray backs and bright yellow bills, making the prettiest of pictures as they sat upon their eggs, or stood brooding over their tender young protecting them from the sun.

The crate was then lowered to another ledge where a party of Murres were sitting on their eggs. These innocent sea birds build no

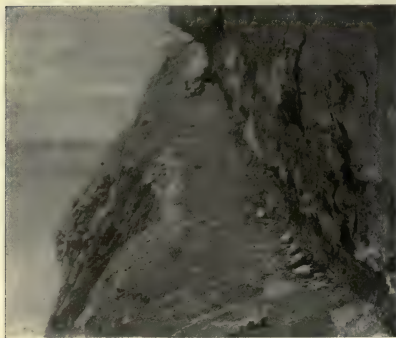


KITTIWAKES ON THEIR NESTS



MURRES ON THEIR NEST-SITES

nests at all; their eggs are long and pointed, so shaped that they will roll around in a circle instead of rolling off the narrow ledge, where they are laid on the bare rocks; the eggs are subject to great variations in color, several shades of blue, green and white, handsomely marked with dark brown and black, in spots, stripes and irregular scrawls. We were soon on intimate terms with them as they stood upright in dignified rows, like so many soldiers, or sat upon their eggs and watched us.



MURRES' EGGS

Most of the Murres were nesting on the lower ledges, which were generally quite inaccessible, though if we had had more time we might have found some way to photograph them.

There were many other interesting subjects for the camera on the top of the rock where the curious little Puffins or 'Sea Parrots' could be seen sitting in little groups on the edge of the precipice, all ready to launch out into space if we came too

near. They were guarding the entrance to their homes—burrows in the soil under the rocks or under the grassy turf. If we had dug them out we should probably have found a bird in each burrow crouching over her single white egg at the farthest end. She would not offer to fly away, and we could easily stroke her back or pick her up, but we must look out for her sharp and powerful beak, which could inflict quite a wound.

On the upper ledges, just below the top of the cliff, the Razor-billed Auks were domiciled, where they had crawled into every available crevice or under every overhanging rock to lay their single eggs on the bare ground. The eggs were not quite so pointed as the Murres,' and were usually white with spots and markings of dark brown and black.



RAZOR-BILLED AUKS ON THEIR NEST-SITES

They were very tame and unsuspicious birds; if we sat still for a few moments near their nests they would fly up and alight within a few feet, eying us curiously and grunting their expressions of satisfaction or disapproval. I should have had some fine pictures of them but for an unfortunate accident by which the plates were spoiled.

One of the features of the trip was our visit to North Bird Rock, three tall pinnacles of red sandstone rock rising out of the sea, three-quarters of a mile away. A dory was lowered in place of the crate and we rowed over, landing with difficulty on a flat rock at the base. A cloud of Kittiwake Gulls flew from their nests on the cliffs as we landed. We managed to scale the first cliff by helping each other up from ledge to ledge, passing the cameras up as best we could. As I raised my head over the top I found myself face to face with a Gannet, in fact a whole colony of them, and a more surprised lot of Gannets I never saw.

The whole flat top of the rock was literally covered with their nests, from which they were beating a hasty, if not graceful, retreat. A few of them held their ground and sat stolidly on their nests until we had photographed them at our leisure. One of the pinnacles was absolutely inaccessible, a secure retreat, its flat top white with nesting Gannets.

But before we had used up all our plates a signal was fired from Bird Rock, warning us to return; the barometer was falling and a blow was not far off; our genial host was sorry to part with us, but prudence suggested that if we would reach the Magdalens in safety, with our frail craft, we must start that night. The two days had been far too short to accomplish all we wanted, but we hurriedly packed up our belongings, bade farewell to our kind friends and started. Parting salutes were fired, handkerchiefs, sweaters, and finally table cloths were waved, as the light northeast wind carried us away from Bird Rock, and the four lonely figures on top faded out of sight.

The wind soon died out to a dead calm, we were twenty-five miles from Grosse Isle, darkness coming on and every prospect of a dangerous gale approaching. But we were not helpless, there were two oars in the boat and four of us to man them. It was a hard night's work, with half hour shifts at the oars, but we stuck to it and finally reached the welcome beach at Grosse Isle just before sunrise. We were tired and sleepy, but we had made the first trip to Bird Rock in an open boat.



GANNETS AND NESTS ON NORTH BIRD ROCK



AMERICAN EGRET GROUP IN THE AMERICAN MUSEUM OF NATURAL HISTORY

Background painted by Bruce Horsfall; birds mounted by H. Lang

The Drumming of the Ruffed Grouse

By EDMUND J. SAWYER

Illustrated by the Author

IN the spring of 1907 I attempted to photograph a Grouse in the act of drumming. I failed, but got several sketches of the birds from life, seeing scores of performances at a distance of forty feet. This was in Franklin county, New York. My second attempt, made the following spring in Chenango county, was more successful, as the accompanying illustrations show.

My method was to go out early in the morning or just before sunset, and, guided by the sound of the drumming, find the logs used by the Grouse. Locating a log well suited to my purpose, I would build a rough shack or "blind," just large enough to cover me while sitting on the ground. The blinds were made of spruce or cedar boughs or slabs of bark, according to the surroundings and material nearest at hand. Several of the shacks were used, all being placed within about twenty feet of the Grouse while drumming. In one case some large slabs of bark, placed against a convenient old board fence at the edge of a wood, formed a neat blind which allowed me to watch a Grouse drum repeatedly, and secure two of the photographs shown, from a distance of eighteen feet. Usually, in order not to frighten the birds, I made the blinds and arranged my camera in position about midday, when the Grouse were most likely to be out of sight and hearing.

In the morning the drumming is generally first heard at daybreak, but a Grouse will often spend the night on or near his drumming log and drum from time to time through the night. In order to witness the drumming in the early morning, therefore, I spent the night in my blind. To watch the Grouse in the afternoon period I entered the blind about three o'clock. It was sometimes two or three hours later before the bird first appeared, and occasionally I waited in vain till sundown.

After once seeing a Ruffed Grouse drum, even from a distance of forty feet, it was difficult for me to conceive how any one could be mistaken at that distance as to the bird's way of performing the act. For the beating of the wings may be easily followed at first,—though their exact outline, of course, is lost during each lightning stroke, and may be seen to remain essentially the same, only faster, till the end.

We will suppose now that we are in a blind, say twenty feet from a drumming log. After being repeatedly deceived into expectation by chipmunks, red squirrels, mice and Chickadees, we hear another rustling in the dry leaves which our strained attention does not mistake. It is a measured patter of running feet or a slow tread just heavy enough to crunch the leaves at every step or two, and occasionally snap a dry twig. The next instant a cock Grouse hops to the top of the log; his head is erect; his feathers lie close to his sides and, for a creature as wild as any that haunts the woods, his whole manner shows only serenity,

and a modest self-satisfaction. The next instant he turns crossways of the log, the head is raised, the feathers of the neck and the black ruff expanded by the same act, the tail is spread, and at the same time the wings beat the air three or four clearly distinct times with a muffled *whir* at each beat—such is the force of the stroke—and then hang straight down for an instant, as also between the strokes just described. Now begins the part of the drumming which is so familiar to many as a distant rumble and characteristic wood sound. As the interval between the strokes, which at first is about a second, gradually shortens the bird assumes a more and more horizontal position until at the end, when the drumming.



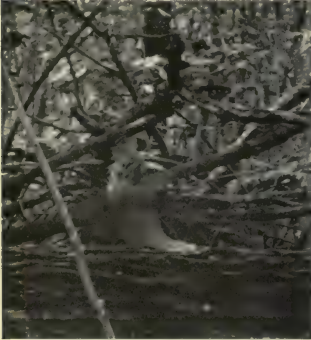
DRUMMING RUFFED GROUSE

Enlargement of the following photograph retouched by E. J. Sawyer

has become one prolonged *whir* of the constantly moving wings, the head sets down close to the shoulders. In the latter part of the drumming the outline of the wings is entirely lost in a gray haze which, however, serves to show the extent of their motion; they are held just free from the sides and fluttered rather than flapped at the close of the act. In the first part of the drumming it may easily be observed that the tips of the wings are brought as far forward as the feet and backward about to a horizontal position. The tail lays flat on the log if the latter is large. The only device I can think of which seems calculated closely to imitate the rapid drumming is a soft, yet solid, rubber ball dropped on the top of a velvet-covered wooden vessel. I have often compared the tone-

of the wing-beats with the sound made by striking my leg just above the knee with the lower (little finger) side of my clenched hand.

One point which should have prevented the belief that the noise is made by the wings striking the bird's perch is the characteristic uniformity of the sound which is of the same nature as the well-known hum of this bird's wings in flight. It does not vary, as would be the case in thumping against different kinds of wood in various stages of decay.



A DRUMMING RUFFED GROUSE
Untouched photograph from nature

Most of the drumming logs are old and more or less moss-covered; the bark has quite disappeared from many, but they are solid enough to afford the Grouse a good foothold, though often considerably worn away, when barkless and somewhat soft, by long continued use of the grasping feet. When a spot has been used for drumming even a week or two, it begins to have the appearance of a chicken roost. If it is a log, as usual, the ground, especially on one side, and perhaps the top will be fouled at the

points where the Grouse stands. There are sometimes half a dozen or more of these drumming spots on one long log; by these "signs" together with a worn or chafed appearance drumming logs may readily and infallibly be known.

The log shown in the photographs was a section sawed from a large tree. It was hollow but otherwise sound. Two similar logs, one end to end with it, the other a rod away, were also used by the same Grouse as drumming-places. The first day I watched him the bird drummed only from the other two logs, while my blind was built nearest and camera focused on the one unused. The next day before the bird appeared in the afternoon I placed sticks over the entire length of two of the logs, leaving untouched the log nearest my blind and camera. After two hours' waiting the Grouse first appeared on one of the brush-strewn logs. He tried his wings in a few places on this log, and then actually drummed, though the tips of his wings brushed the sticks about him. He then walked along the log, gingerly picking his way among the sticks, looking evidently for a better spot, and soon went to the other brush-covered log where he drummed several times. Still hampered by the brush, he finally hopped to the log before my camera where all seemed to his satisfaction, for he remained here a long while, drumming repeatedly. That evening I added enough brush to the troublesome logs to prevent drumming on them, and had no farther difficulty in that way, the Grouse thereafter coming directly to the desired place.

The photograph made of the bird just mentioned, showing a side view,

was taken about the middle of the drumming period and given one second's exposure. My camera, by the way, merely a regular 4 x 5, ten-inch bellows machine, had to be placed with the lens only four or five feet from the subject. It was covered loosely with a green hood and spruce boughs and operated by means of a fifteen-foot tube with bulb, from my blind.

The drumming ended (the entire act lasts about ten seconds) the Grouse immediately raises his head and raises and expands his tail by one motion, which seems involuntary as if from the exhilaration of his late effort, the tail slowly falling again to its usual position. The bird may now stand motionless, apparently listening for several minutes until the drumming begins again as before. I have heard or seen at close range at least a hundred of the performances. Each of these could be described as above, excepting a very few times when, after few preliminary wing beats, the bird suddenly stopped, being interrupted by some unusual sound such as the bark of a dog, scream of a Hawk, snapping of a twig in my blind, or even a sight of me.



CANADIAN RUFFED GROUSE

Photographed at Snoeshoe Lake Me., by Henry R. Carey

The Use of a Blind in the Study of Bird-Life

By FRANK M. CHAPMAN

IF one would study the habits of birds under natural conditions it is of the first importance that they be unalarmed by one's presence. While in some comparatively rare instances a species may not have acquired fear of man or may, fortunately, have learned to trust him, man's presence is always a more or less disturbing element, if not to the bird in question, at least to other species with which it may chance to become associated. With bird as with man, the consciousness of being under observation induces more or less artificiality of manner, and if one would gain true insight into either bird life or human life, ones subject should be unaware that they are the objects of scrutiny.

It sometimes happens that one finds, already existing, a place which affords effective concealment, but this is exceptional and, in the end, it will be found necessary to employ an artificial blind.

I must confess that when writing 'Bird Studies with a Camera' I did not appreciate the necessity for a hiding-place which not only permitted one to photograph but to see. But whether or not one uses a camera, a blind will be found to be of the greatest assistance in securing the proper point of view.

It is the first requisite of such a blind that it be easily transportable; it should also be inconspicuous, and so simple in construction that it may be quickly erected. The results of my first attempt (1900) to make a structure which would fulfil these requirements was a ridiculously complicated affair of upright sticks and iron hoops around which was placed a canvas, painted in the somewhat distant semblance of bark. This affair was supposed to be an imitation tree trunk, and it illustrates how far one may be carried on the wrong road by a false premise. The fundamental error in this case was the belief that the blind must be like some object in nature. As a matter of fact, this is not necessary. It should be as unobtrusive as possible, and it is often more quickly accepted if it be partly disguised with reeds, bushes or vines. But its chief virtue is its immovability. It may excite suspicion for a time, but its inanimateness finally wins and, to the birds, it becomes a part of the landscape to be perched on if convenient.

This at least has been my experience with the blind from the shelter of which most of my studies of birds have been made. In brief, this blind is an umbrella opened within a bag long enough to fall to the ground. It may be described in detail as follows:



THE UMBRELLA AND
SUPPORTING RODS

The Umbrella.—The umbrella employed in making an observation blind, is known to the trade as a "sign" umbrella. It agrees with the normal variety in size but differs from it in having a large hole in the center. This permits a current of air to pass through the blind—a matter of the first importance when one spends hours in the little structure on beach or marsh, where it is fully



UMBRELLA BLIND SET NEAR WARBLING VIREO'S NEST

In this blind an ordinary umbrella was employed, the covering being sewed to the edge (Shoal Lake, Man., June, 1901)

exposed to the sun. The "stick" of this umbrella is a metal tube without the usual wooden handle.

The Supporting Rod.—The umbrella is supported by two brass tubes each of the same length as the umbrella, or thirty-three inches. The larger is shod with a steel point, by the insertion of a small cold chisel or nail punch, which is brazed in position. It can then be readily driven into the ground. At the upper end, a thumb-screw is placed. The smaller tube should enter the larger snugly and should, in turn, be just large enough to receive the umbrella rod, which will enter it as far as the spring "catch". The height of the umbrella may therefore be governed by the play of the smaller tube in the larger, while the thumb-screw will permit one to maintain any desired adjustment; as one would fix the height of a music rack.

The Covering.—If the blind is to be used about home, a light denim may be employed; if it is to see the harder service of travel and camp-life, a heavier grade of the same material will be found more serviceable. In the former case, the denim may be sewed to the edge of the umbrella, which then has only to be

opened and thrust into the brass tube which has been set in position, when the blind is erected; an operation requiring less than half a minute.

When traveling, it seems more desirable not to attach the walls of the blind to the umbrella. The covering then consists of several strips of material sewed together to make a piece measuring $6\frac{1}{2} \times 11\frac{1}{2}$ feet wide. The two ends of this piece are sewed together at what then becomes the top of the blind, for about two feet. The unjoined portion below, becomes the door of the blind. Openings should be cut in the opposite side, for the lens and for observation. A strong draw cord is then run about the top edge of the cloth, so that, before inserting and opening the umbrella, one can draw it up, as one would the neck of a bag, until the opening corresponds in size to that in the top of the umbrella. The draw cord should be long enough to serve as a guy or stay. This covering places less strain on the umbrella and may be packed in smaller space than one which is sewed to the umbrella and, when in camp, it may be used to sleep on, as a covering, as a shelter tent or in a variety of ways.

The color of the umbrella should be leaf-green. The covering should be sand- or earth-colored and should be dyed leaf-green on its upper third, whence it should gradually fade to the original cloth color at about the center. Such a color scheme conforms to Abbott Thayer's law that animals are darkest where they receive the most light, and palest where they are most in shadow; and therefore renders the blind much less conspicuous than if it were uniformly green or gray. It is not amiss to run belts of braid about the covering, sewing them to it at intervals and thus forming loops in which, when desired, reeds or branches may be thrust.

In erecting the blind, if circumstances permit, it is desirable to place the "door" toward the wind to insure better ventilation. Where the situation is exposed, an additional stay or two may be required. If the camera box is not strong enough to sit on, a collapsible artist's camp-stool should be added to the outfit. One cannot spend a half day in such close quarters and observe and record to advantage unless one is comfortably seated. This structure weighs only a few pounds and when folded may easily be slung on one's back, becoming in fact, a quickly available "cloak of invisibility" from the shelter of which one may see unseen. A blind of this type is shown in position in BIRD-LORE for August, 1908, in the article on Fish Hawks.



A Thrasher Friend

By EMELINE MADDOCK

IT was during my daily pilgrimages to the wood at the edge of the pasture at Spring Lake, New Jersey, where I went to study the birds, that I discovered a Thrasher, among the many that frequented the spot, which seemed peculiarly tame. He never hesitated an instant in coming over to the "lunch-table" which I spread daily for the birds' refreshment, to partake of its goodies. There was something almost uncanny about this little Thrasher; in the gentle fearlessness of his intent gaze, and the sweet intelligence shining in his amber eyes. At first I mistook him for one of the Thrashers who had built a nest in a sapling over my shoulder, but soon found out my mistake,—for, though all Thrashers looked alike to me at the beginning of the season, I could defy any Thrasher at the end of the summer to puzzle me into inability to identify him from any other of his species.

The pair of nesting Thrashers, of course, resented the presence of the birds attracted to the spot by the food I brought for them, and especially disliked any



A THRASHER FRIEND

of their own species about, and they chased away my little tame Thrasher so often that I wondered at the persistency of the latter in returning daily to the place. At last, his gentle manner lead me to wonder if he could be induced to eat from my hand; so one day, I began the taming process by placing a piece of cornbread on the tip of my boot as I sat Turk fashion on the ground, and after a little hesitancy and some pretty, sidling motions, he jumped up on my foot, and ate the piece eagerly. This was the beginning of our friendship, and it needed little persuasion after this to induce him to eat from my hand. Several times he came up on my knee to eat the cornbread I held, even when there were some on the

ground which he could have taken. Two or three times, when his meal was over, he would rest on the tip of my boot, and take a nap, and I would grow tense with the strain of absolute quiet in every muscle, afraid to breathe for fear of frightening him.

He loved to bathe in the pan of water I kept filled for the birds to drink from, and sometimes he would go, afterwards, to the little earth-hollow which was the exclusive property of the female nesting Thrasher, and cuddle in there for a sun-bath, which of course meant a fight, for she would oust him in a tiny fury, and twice he came over to me for refuge, where she dared not follow him. Another time, after taking his bath, he came over to a tiny hollow just at the edge of my skirt, where he flattened himself into a round ball in the sunshine, glancing up at me occasionally in the gentle, sweet way he had that was so infinitely winning. One action of his was peculiarly winsome, and that was the strange, exquisite courtliness of his attitude when approaching to eat from my hand; as a rule he would lift his pretty wings till they met over his back, though sometimes he merely extended them sideways slightly. "May I have some, please?" he seemed to ask, by this gentle courtesy.

On July 20, he disappeared, and to say I missed the little fellow would be to state it mildly. Day after day I hoped against hope that he would return, but Thrashers were getting scarcer every day. It was August 14, when he finally returned, and it took me three days to recognize him, for he looked larger, and was not so pretty, being in a bad state of molt. But the characteristic, pretty motion of the uplifted wings was unmistakable, and he was soon eating out of my hand again as tame as ever. After September 5, he again disappeared, and this time I feared I had seen him for the last time. But on the 13th when I entered the wood, he was there; he looked so different, however, that I failed again to recognize him at first, for his molt was over, he was trim and pretty, and his feather markings were unlike the old, frayed-out plumage. He roosted on a bough in front of me, and began to sing through his closed beak, —a song as clear and sweet, though not so loud, as any Thrasher melody heard in May or June,—indeed he was full of song, his sides vibrating, and his long tail shaking with the energy of his vocal efforts. The following day he was there again, and this time I sat on the ground, holding out the cornbread, and then recognized the bird as he flitted close to my hand, raising his wings in his own dainty, graceful manner. This was the last time I saw him; and I have often wondered since whether he knew how much I loved him? And he? He left no shadow of doubt in my mind as to the depth of his love for cornbread!



A Southern Illinois Lunch Counter

By LAURA F. BEALL

FOR many winters we kept a lunch counter for the birds at our home in southern Illinois, and found so much pleasure in watching our feathered neighbors and saw so many quaint antics, that a little history of it may not be without interest.

The beginning of it was a box fastened on a limb of a cherry tree that grew about twenty feet from the kitchen windows; in that we placed bread crumbs, bits of suet, and scraps of almost every kind. Finding how enthusiastically this was received, we hung loosely crocheted bags filled with nuts and suet in the tree, and tied gourds containing raw peanuts in the windows.

After a while we added a shallow tin pan full of different seeds; this was placed on the window-sill, carefully fastened so it would not upset when our small boarders alighted on it. Often we popped corn and scattered it on the ground underneath the tree. This was largely for the delectation of the English Sparrows, who did not go to the box often if there was anything to be had on the ground, and as they were numerous, and had good appetites, we preferred to keep them out. They gave no trouble aside from numbers, however, and appeared to be respectable, law-abiding citizens.

One of the bird authorities says the male Downy is anything but chivalrous in winter, but the one that patronized our counter was assuredly a cavalier "without fear and without reproach." At first we had but the pair, and we noticed that they never came together; that the female invariably came first in the morning, and that they both carried food away, and always flew in the same direction, with it. We wondered a good deal what it meant, and finally, one day, we saw three Downies fly into the tree, our pair and another male. They all came to the box and ate, and after that all three generally came together, and what delightful hours we spent watching their gambols among the branches. They would frisk and play, and chase each other in and out with the greatest glee imaginable.

A Chickadee that came to the window one winter had lost one leg, and though he was almost as agile, and quite as gay as the rest, his kinfolk were very unkind to him, pecking at him, and driving him away whenever they could. He never came without a cheery song, and seemed so happy, and gentle, in spite of his afflictions, that we loved him more than any of the others. He seemed to care more for water than food, and every little while through the day we put out warm water for him. But one day we watched for him in vain. Whether he was killed, or whether he died a natural death, of course we never knew.

The gourds at the windows were the especial property of the Chickadees and Titmice. After they tasted the raw peanuts they could not be persuaded to eat anything else, and one day a Titmouse actually stuffed himself so full he could not fly. He sat in a heap on the sill for about an hour, blinking at us

occasionally when we looked out at him, and then all at once darted off, and probably was back after more in a short time.

Gradually the counter came to be an all-year affair, and last summer a family of young Tits were practically brought up on our sill, being taken there by their parents before they possessed the faintest suggestion of a tail, and staying there until that appendage was fully grown. And such a clatter! Their yellow-lined mouths were open from morning till night, and noise entirely out of proportion to the size of the birds was issuing from those caverns all the time, except when their proud parents—and they, had reason to be proud of the satin-coated little beauties—were putting food in them. We saw the following birds eating:



WHITE-BREASTED NUTHATCH AT A LUNCH COUNTER

Photographed by Edwin C. Brown, Minneapolis

the Downy, Hairy and Red-headed Woodpeckers, the Yellow-bellied Sapsucker, Flicker, White, and Red-breasted Nuthatches, Juncos, Titmice, Black-capped and Carolina Chickadees, Song Sparrow, White-throated and White-crowned Sparrows, English Sparrows galore, Brown Thrashers, Robin, Catbirds, Towhee, Carolina, House, and Winter Wrens, Blue Jays, and last, but not least, the lovely Cardinal. For several winters we had seven Cardinals regularly, and their glowing beauty, thrown into relief by the snow that was covering ground and trees, was a sight never to be forgotten.

One of the most interesting things we noticed was the rapidity with which the Nuthatches detected the presence of walnuts. We never saw them unless we put out cracked walnuts; then in less than an hour we would hear a *yank*, *yank*, and there were the Nuthatches. They would remain until the supply

of walnuts was exhausted, and then depart to be seen no more until more were put out, then they smelled them afar off, and came hastily back.

These are only a few of the birds seen in the yard, and probably many others fed there. Very little time was taken to keep up the lunch counter (a good deal was spent watching the little boarders however), and we felt well repaid by their evident appreciation, and cunning ways.

Our success—I had a list every year of nearly a hundred species, seen mostly in our own yard—shows what can be done, and easily done, by producing food and water, and what protection is possible against their enemies, particularly cats, Screech Owls, and small boys. Any one will find it well worth doing.

Bird-Lore's Ninth Christmas Bird Census

THE plan of reporting one's observations afield on Christmas Day has met with such cordial and practical endorsement by bird students throughout the country that BIRD-LORE's Christmas Bird Census may now be considered a fixed event, which increases in interest as the accumulating records give additional material for comparison. From a total of 25 lists received in 1900, it has grown to 142 lists in 1907.

Reference to the February, 1901-1908 numbers of BIRD-LORE will acquaint one with the nature of the report of the day's hunt which we desire; but to those to whom none of these issues is available, we may explain that such reports should be headed by a brief statement of the character of the weather, whether clear, cloudy, rainy, etc.; whether the ground is bare or snow-covered, the direction and force of the wind, the temperature at the time of starting, the hour of starting and of returning. Then should be given, in the order of the A. O. U. 'Check-List,' a list of the species seen, with exactly, or approximately, the number of *individuals* of each species recorded. A record should read, therefore, somewhat as follows:

Yonkers, N. Y. Time, 8 A. M. to 12 M. Clear, ground bare; wind west, light; temperature 38°. Herring Gull, 75. Total,—species,—individuals.—JAMES GATES.

These records will be published in the February issue of BIRD-LORE, and it is particularly requested that they be sent the editor (at the American Museum of Natural History, New York City) not later than December 28. It will save the editor much clerical labor if the model here given and the order of the A. O. U. Check-List be closely followed.

The Migration of Flycatchers

SEVENTH PAPER

Compiled by Professor W. W. Cooke, Chiefly from Data
in the Biological Survey

With Drawings by LOUIS AGASSIZ FUERTES and BRUCE HORSFALL

DERBY FLYCATCHER

This is a non-migratory species ranging throughout most of Central America and extending north to the valley of the lower Rio Grande, in Texas.

BEARDLESS FLYCATCHER

A species principally of Central America, from Nicaragua northward, that spends the winter at least as far north as central Mexico. A few have been noted in southern Texas, where the species arrives in March. The bird breeds near Tucson, Arizona; here the first one was noted April 28, 1881, fledged young were seen May 29, 1881 and young in the wing, but still fed by the parents, June 11, 1903.

OLIVE-SIDED FLYCATCHER

The Olive-sided Flycatcher occurs throughout the United States except in the southeastern part, where it is almost unknown outside of the mountains. Though it breeds in the mountains as far south as North Carolina, records of its movements are rare south of New England.

SPRING MIGRATION

PLACE	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
Flushing, N. Y.....			May 24, 1872
Chepachet, R. I.....			May 24, 1900
Eastern Massachusetts.....	5	May 24	May 20, 1902
Monadnock, N. H.....	2	May 20	May 18, 1903
St. Johnsbury, Vt.....	4	May 23	May 19, 1907
Southwestern Maine.....	5	May 23	May 20, 1906
St. John, N. B.....	4	May 24	May 23, 1891
Scotch Lake, N. B.....	5	May 26	May 22, 1905
Halifax, N. S.....	2	May 28	May 26, 1903
Montreal, Que.....			May 31, 1892
Godbout, Que.....			June 6, 1883
St. Louis, Mo.....			May 8, 1886
Wheatland, Ind.....			May 12, 1885
Urbana, Ill.....			May 12, 1904
London, Ont.....			May 13, 1900
Chicago, Ill.....	7	May 24	May 20, 1898
Hillsboro, Ia.....	5	May 19	May 15, 1895
Lanesboro, Minn.....	4	May 25	May 23, 1891
Huachuca Mountains, Ariz.....			April 20, 1902
Loveland, Colo.....			May 11, 1887
Columbia Falls, Mont.....			May 21, 1897
Pasadena, Calif.....			April 24, 1896
Corvallis, Oreg.....			May 4, 1906
Tacoma, Wash.....			May 15, 1904
Fort Kenai, Alaska.....			May 26, 1869

FALL MIGRATION

The earliest fall record on Long Island is August 19, 1888; the average date of arrival for three years, at Lanesboro, Minn., is August 6, the earliest date being August 3, 1890; the average of four years at Hillsboro, Iowa, is August 25, the earliest, August 23, 1899; the earliest fall date in southern Louisiana is August 16, 1903.

FALL MIGRATION

PLACE	Number of years' record	Average date of the last one seen	Latest date of the last one seen
Aweme, Man.....	6	August, 29	September 4, 1907
Lanesboro, Minn.....	4	September 8	September 9, 1888
Hillsboro, Ia.....	4	September 7	September 10, 1899
Chicago, Ill.....	6	September 7	September 15, 1898
Ellis, Kans.....			September 14, 1875
St. Louis, Mo.....			September 25, 1885
Scotch Lake, N. B.....	4	August 10	August 12, 1903
St. John, N. B.....	5	September 5	September 10, 1894
Halifax, N. S.....			September 3, 1902
Dublin, N. H.....			September 14, 1897
Erie, Pa.....			September 18, 1900
Jamaica, N. Y.....			September 26, 1900
Pasadena, Calif.....			September 26, 1896

COUES'S FLYCATCHER

Southern Arizona and northern Mexico comprise the range of this species. In Arizona it seems to be found only in summer and breeds in the mountains from 6,000 to 10,000 feet. The earliest date for Arizona is March 29, 1903, in the Huachuca Mountains, and the latest, September 4, 1884 in the Santa Catalina Mountains. A straggler was taken at Fort Lyon, Colorado, April 20, 1884.



SONG SPARROW

Photographed by A. A. Saunders, New Haven, Conn.

Notes from Field and Study

A Winter Bird Resort

The writer as an incident of his vacation, spent a considerable part of the past winter in Guantanamo Bay, Cuba, and while there made it a practice to land frequently to observe the manifold bird life of the region. Originally expecting to see only native Cuban birds, my delight may be imagined when on the very first excursion into the thorny tropical jungles I began to see familiar faces and feathers and realized that I had found the winter quarters of some of our well-known North American birds.

The first home bird that I saw, the identification of which was complete and led me to look for other friends from home, was an Oven Bird. I saw this bird, or at least an Oven Bird, on several subsequent occasions always in the same locality and always busily walking about the ground picking up the morning meal. My favorite landing place, on Caracoles Point, is uninhabited; there is no shooting there, and the birds are consequently remarkably indifferent to men as well as remarkably numerous. I could walk up so close to the Oven Bird without alarming it that my field-glasses were of no use, and my experience was the same with many other species, both Cuban and North American.

Warblers were very numerous, and I identified other of our birds whose plumage or characteristics are unmistakable, even to an amateur, such as the Black and White Warbler, the Black-throated Blue Warbler (both male and female), the Tennessee Warbler, the Redstart, the Phoebe, and the little Blue-gray Gnatcatcher. The latter was especially numerous, and properly so, for there are certainly gnats enough for them in those briery Cuban thickets. The sweet little song of this Gnatcatcher is about all the bird music one hears in this season and region, the other birds that I have mentioned being silent except for a short *chip* or *cheep* that seems to be a sort of hunting cry with

them. Mockingbirds and Brown Pelicans are very plentiful, but I believe they are on their native heath in these West India Islands.

I had it in mind to observe the North American birds closely as spring approached in order to fix the dates of their departure on the northern migration, but naval duty prevented. The middle of March the whole fleet sailed from Guantanamo Bay to conduct the annual record target practice, and I had to say farewell to my birds, leaving them in their winter homes.

It is difficult to close these notes without mentioning some of the beautiful and very numerous Cuban birds of land, sea and shore that one sees about this region. Some of these, as the Tody, a lovely little bright green bird with a red throat, a gorgeous Woodpecker, a brilliantly marked Trogon, and black Orioles with golden trimmings, are so strikingly handsome that it is to be regretted they do not live in the United States where more people might see them. There are Hummingbirds of several species, various Herons and a curious black bird with a parrot-like beak that I take to be the Ani. The big Mangrove Cuckoo is often seen, and another and much larger species of Cuckoo (*Saurothera*) is even more numerous. This latter is a rich brown- or bronze-colored bird with a remarkably silent and stealthy manner of moving about in the tree tops, scarcely moving the leaves, and their flight is owl-like and gloomy without a sound. A more uncanny object I have never seen in feathers.—F. M. BENNETT, U. S. N.

Sea Birds and Whalers

Last summer, while on board the whaling steamers which "fish" along the west coast of Vancouver Island, I saw an interesting way in which sea birds make themselves of considerable use to the sailors. The whales feed on a small shrimp about

half an inch in length which at times during the day float at the surface, staining the water a light pink. These minute animals also furnish food for countless schools of herring and great flocks of Gulls, Petrels and Terns. The birds are a welcome sight to the men on the vessel for when they are seen circling above the water, "feed" is sure to be plentiful and the whales easy of approach. It was here, from the steamer Orion, that I had my first sight of the Black-footed Albatross. Although the "Gonies," as the sailors call them, never came in the bays or close to

ANDREWS, *American Museum of Natural History, New York City.*

The Wit of a Florida Nighthawk

During the season of 1904, while plowing the last furrow for the evening in a potato patch, I saw a Nighthawk flutter off in the grass as if her wing were broken. After carefully searching the place from which it started, I found two eggs lying on the bare ground, their dark color making them very inconspicuous. This last furrow came very near to the eggs, and it was evident



BLACK-FOOTED ALBATROSSES

Photographed by Roy C. Andrews

shore, when the vessel was fifteen or twenty miles at sea, she would be surrounded by numbers of the great, brown birds which followed her from dawn until dark. Sometimes with slow, steady wing-beats they would fly beside the harpoon-gun at the bow, or, skimming just above the surface of the water, alight, daintily hold their wings on high and carefully fold them without wetting even the tips of the feathers. The birds showed no fear of the men on the vessel, sometimes coming so close for scraps of food that one could almost touch them by leaning over the rail.

As I was hunting whales I made but few attempts to photograph this most northern representative of the family, one picture of which is presented herewith.—ROY C.

that they would come in the way when we continued plowing the next day. Owing to the very dry weather, we planted only a few rows each evening.

I left the eggs undisturbed, and forgot all about them and the bird until the next evening, after I had already plowed past the place where the eggs were the first evening, when suddenly the Nighthawk flew off as it had done the evening before. On the ground were the two eggs. Now, if this was the same bird, it had moved its eggs about fifteen feet farther from the plowed ground than they were when first found. By watching two or three succeeding evenings, I became convinced that it was the same bird and that it had moved its eggs every day about the same distance

from the plowed ground, for just as we were finishing for the evening the bird would fly off of her eggs.

The evening after the last plowing,—after we had planted all we wanted,—I went to the place, and after considerable search found the eggs where they had been moved a short distance from the last furrow. I visited the place on several succeeding days, and found that the eggs were not moved after the potato planting was finished.—ANGUS MCKINNON, *De Funiak Springs, Florida.*

The Dickcissel on Pine Ridge Indian Reservation, South Dakota

For a period of nearly three years I closely observed the avifauna of Medicine Root creek, a stream of Pine Ridge Indian Reservation, in southwestern South Dakota. The period in mention extended from October, 1901, to July, 1904, when during this time not a single Dickcissel was seen by me. In July, 1907, when I paid a visit to this creek, and rode nearly its entire length of about twenty-five miles, I saw and heard at one point, on a broad place in the valley, about twelve miles from its confluence with Big White river, a half-dozen or two of the birds in question, among some plum trees and wolf-berry bushes. I may here state that during the period of approximately three years, mentioned above, I had observed, as opportunity permitted, the bird life of a large portion of the reservation, a tract of land about 100 long by 60 miles wide; and during this time I had seen none of these birds anywhere in the region. Of course they are to be looked for only along the creek valleys. Among the semi-arid hills and higher plains they are not to be found.

The Dickcissels seen by me on Medicine Root, in July, 1907, however, were not the first to be observed in the interval extending from the close of my first three years' observation of the birds of the reservation to that date. I left the reservation in July, 1904, and returned on April 22, 1905, taking up my station on Grass Creek, some thirty or thirty-five miles west of my former

location on Medicine Root creek. I remained here until August, 1906. This creek, for the most part, has a broad plain with many small trees and bushes and wolfberry shrubs,—conditions favorable, one would think, for the habitat of the Dickcissel. I saw nothing of this species, however, along Grass creek proper, at any time. But on July 9, 1905, I saw one of these birds, a male, in a little valley that opens upon the plain of Grass creek, and about a mile to the west of the point where the two valleys join. The bird was seen in a clump of bushes near a pool of stagnant water. It is to be suspected that the female bird was near by, and that both may have been in the vicinity for some time.

The next summer (1906), on Wounded Knee creek, some five miles to the east of Grass creek, I saw, on June 13, one Dickcissel, a male. Shortly afterwards I noted several of these birds. They were seen among some plum trees and wolfberry shrubs, and were distributed at intervals along a tract about half a mile in length. The next summer (1907) when passing by on horseback, I saw them along this tract again, and, I estimate, in increased numbers. The year before, (August, 1906), I had been transferred to Lake creek, about forty-five miles to the southeast of my former station on Medicine Root. That summer I saw no Dickcissels at my new station, but the following year (1907), they appeared suddenly, in large numbers, on June 13—mark the date!—and became immediately common. The quality of the bird music of the valley was suddenly changed, and the notes of the Dickcissels were heard above all others. About two weeks after the above date I found a nest containing four eggs.

From the observations given above we must conclude that this erratic Bunting has recently come to Pine Ridge Reservation, and is increasing in numbers there with each visit.—H. TULLSEN.

Migration in New Mexico

The autumnal tide of Warblers began to flow down upon Fort Stanton, New

Mexico, August 28, after ten days of, for us, hard rains and somewhat cooler weather.

Fort Stanton, an old army post, is now used as a sanitarium for tuberculous sailors of the United States Merchant Marine. It has an elevation of 6,632 feet and is situated on the eastern side of the White mountains, an isolated peak which rises to a height of 10,000 feet.

In order to reach the well-wooded mountain sides birds coming from the north or northwest are compelled to cross a sandy desert of quite seventy-five miles in extent.

After reaching this point, the small birds appear to follow the water-courses in a southeasterly direction; perhaps preferring to trust themselves to the shelter of the trees along the banks rather than to risk another dusty flight across the barren plains. Then too, they reach a warmer climate sooner by dropping into the Pecos valley than they would were they to keep due south at this elevation.

The first Warbler seen was on the afternoon of August 28. This was a "Pileolated Warbler." On the 29th they were more numerous and on the 30th all the cotton woods around the fort and on the Bonito were filled with them. On September 1, only a very few were to be seen, but stragglers continued to drop in until the 22d.

On August 30, three Macgillivray Warblers were seen in the underbrush along the river, or brook, as the Bonito would be called back East. They were extremely shy, differing greatly in this respect from their cousins, and it was much easier to hear their shrill *peet peet* of alarm than to see the bird. They were more abundant during the first week of September but were never numerous and were always more or less shy.

During the spring migration they were quite numerous and easily watched either on the ground or in the bushes.

On August 30, and again on September 1, one Western Water-Thrush was found.—L. D. TRICKS, *Post Adjutant Surgeon, United States Public Health and Marine-Hospital Service.*

Central Park Notes

A Grackle Incident

On the morning of May 9, while walking through the lower end of Central Park, Miss Crolius, of this city, and I saw a Grackle flying heavily over a field with a bird, which was uttering cries of distress, in its claws. The Grackle evidently did not know enough to obtain a firm grip, for its captive was able to struggle violently. The interesting fact was that the bird was evidently not a nestling, but an adult. It is well known that Grackles often eat young birds, but I have never heard of their capturing and carrying off fully grown ones.

Tennessee Warbler

I identified a fully adult female of this species on the morning of August 20. It was very nervous and restless, and, as it fed, it uttered a sharp *tsit*. This same bird was seen again that afternoon by Mr. George E. Hix and myself. I also saw it the next morning. An interesting fact was that it was found in exactly the same place all three times. This Warbler has always been very rare here.

Cape May Warbler

This generally rare Warbler has turned up several times in the Park this autumn. Below I give the dates of occurrence:

September 22, one young male; September 24, one male; October 1, one young female.

All three birds were seen in company with Blackpoll Warblers which have been exceedingly abundant this autumn.

Mourning Warbler

Miss Crolius and I watched a female of this rare Warbler for over an hour on August 6. It was very shy and spent its time in thick clumps of rhododendrons, occasionally walking on the ground and stretching up to pick insects off the lower leaves. While feeding, it gave a whispered *sip*, as if it were talking to itself. When alarmed, it uttered a sharp *chuck*, very much like the call-note of the Water-

Thrush in quality. Once or twice it flew up to a branch about fifteen feet from the ground and sat perfectly still watching us. After a time it would fly down again into the bushes and resume its feeding. This is the first fall record of this Warbler for the Park, and, indeed, I believe it is very rare at this season in the neighborhood of New York City.

Connecticut Warbler

A young bird of this species was seen by Miss Anne A. Crolus and Mr. Stanley V. Ladow, September 22. I have also seen it twice in the immediate vicinity of the city.

Myrtle Warbler

I saw an individual of this species in fall plumage August 28. This is three weeks earlier than it is usually seen in this neighborhood.

Yellow-bellied Flycatcher

This Flycatcher was almost common in the August migrations. I have records of six individuals, the first having been seen on the 16.—LUDLOW GRISCOM, *New York City*.

Song of Kirtland's Warbler

A Kirtland's Warbler positively identified May 16, 1908, at La Grange, Illinois, sang at intervals while busily feeding; the songs seeming to vary slightly as follows: *We-chee, we-chee, we-chee, chee-ree-ee!* or *we-see, we-see, see-see-rrrrrr!* or *we-see-see-see-rrrrrrrr!* It was always marked by the softness of the first notes and prolonged accent of the last; the volume increasing, also, and the final sound having the quality of a prolonged *r* or *re*. The song is unusually loud and clear for a Warbler's song and possesses a peculiar sweetness that, once heard, will not soon be forgotten.—LOUISE B. MOYER, *La Grange, Illinois*.

Rare Birds in Prospect Park, Brooklyn, N. Y.

It is not necessary to go "far from the madding crowd" in order to see birds.

In Prospect Park, Brooklyn, I have observed 98 species since January 1, 1907, and my list will certainly pass the century mark long before the year is over. Some of the more noteworthy records are the following:

Black-crowned Night Heron, February 2; Carolina Wren, February 22, February 28,—a rather common fall migrant; Pine Siskin, March 12, March 21; Turkey Vulture, March 19; Olive-sided Flycatcher, June 12; Red-headed Woodpecker, September 14; Cape May Warbler, September 17; Pigeon Hawk, September 27.—EDWARD FLEISCHER, *Brooklyn, N. Y.*

Arrival of Winter Birds in Chicago

Scarcity of food owing to dry weather, forest fires in the northern country, or other and perhaps more usual causes, seems to be hastening the winter birds southward, and the coming season promises to be a good one for winter observations.

On November 7, I saw a pair of Evening Grosbeaks on the Wooded Island in Jackson Park, Chicago. They were perching quietly in a clump of small trees, were not at all wild or timid, and gave me an excellent opportunity to observe them. Presently they flew down to the edge of the lagoon and drank, and I have never seen a more pleasant sight in bird life than these two Grosbeaks made standing side by side in the frosty morning sunlight dipping up water.

On November 8, I found a flock of Pine Siskins in the south part of Jackson Park. They were making themselves very much at home about the trees and shrubbery and in the grass. Some English Sparrows took offense at their presence and assailed them time and again. The Siskins yielded their ground very reluctantly, and came back each time as soon as the Sparrows had gone.

On the same day, just south of the Park, on some vacant land, part of which is under cultivation and part overrun by weeds and wild grasses, I encountered a small flock of Snow Buntings. I have been

so accustomed to associating Snow Buntings with wintry storms and snow-blown fields that the sight of these birds here in a cabbage patch on a sunny mid-autumn morning was a surprise to me.

I may add that the season here has been unusually mild and pleasant, and so the early arrival of these winter birds seems all the more worthy of note.—F. A. PENNINGTON.

The Twenty-sixth Annual Congress of the American Ornithologists' Union

The Twenty-sixth Annual Congress of the American Ornithologists' Union was held in Cambridge, Mass., November 16-19, 1908.

At the business meeting held in William Brewster's Museum on the evening of the 16th, the election of officers resulted as follows: President, E. W. Nelson; Vice-Presidents, Frank M. Chapman, A. K. Fisher; Secretary, John H. Sage; Treasurer, J. Dwight, Jr.; Councilors, Ruthven Deane, William Dutcher, H. W. Henshaw, F. A. Lucas, Chas. W. Richmond, Thomas S. Roberts, Witmer Stone.

F. DuCane Godman, of London, was elected an Honorary Fellow, and Otto Herman of Hungary a corresponding Fellow. Between eighty and ninety Associate Members were elected.

The public sessions of the Congress were held in the Museum of Comparative Zoology, about one hundred members of various classes being in attendance.

PROGRAM

TUESDAY A. M.

Experiences of an Ornithologist in Costa Rica, M. A. Carriker, Jr., Pittsburgh, Pa.
Canadian Bird Havens, Ernest T. Seton, Cos. Cob, Conn.
A Hollow Tree, Ernest T. Seton, Cos. Cob, Conn.
Ornithological Miscellany from Audubon Wardens, B. S. Bowdish, New York City.
Scarcity of the Ruffed Grouse in 1907, E. Seymour Woodruff.

TUESDAY P. M.

A way to lighten the burden of Nomenclature, Jonathan Dwight, Jr., New York.
Vernacular names of birds, Jonathan Dwight, Jr., New York City.
Some Observations on the Gulls and Terns of Massachusetts (illustrated by lantern slides), E. H. Forbush, Wareham, Mass.

WEDNESDAY A. M.

Observations on the Black Mamo of Hawaii, W. A. Bryan.
The tagging of wild birds as a means of studying their movements, Leon J. Cole, New Haven, Conn.
The part played by Birds in the recent Field Mouse Plague in Nevada, C. Hart Merriam, Washington, D. C.
The Position of the Birds' feet in Flight, Chas. W. Townsend.
The First Bird Protective Society in Italy, W. R. Lord.

WEDNESDAY P. M.

A study of a breeding colony of Yellow-headed Blackbirds, with an account of destruction of the progeny of the entire colony by some unknown agency (illustrated by lantern slides), Thos. S. Roberts, Minneapolis, Minn.
Propagation of Bob-white (illustrated by lantern slides), C. F. Hodge, Worcester, Mass.
Methods of study of the Nesting Habits of Birds (illustrated by lantern slides and moving pictures), Frank M. Chapman, New York City.
Pelican Island in 1908 with other Florida notes (illustrated by lantern slides and moving pictures), Frank M. Chapman, New York City.

THURSDAY A. M.

Bird Studies in Northern Ontario, W. E. Clyde Todd, Pittsburg, Pa.
Triumphs of Bird Protection in Louisiana (illustrated by lantern slides), Herbert K. Job, West Haven, Conn.
Through Eastern Oregon (illustrated by lantern slides, by H. T. Bohlman and W. L. Finley), William L. Finley, Portland, Oregon.

Book News and Reviews

THE LAY OF THE LAND. By DALLAS LORE SHARP. With drawings by Elizabeth Myers Snagg. Houghton, Mifflin & Co. Boston and New York. 12mo. 214 pages, 15 decorative chapter headings. \$1.25 net.

As a writer of nature literature—we use the term in an exact sense—Mr. Sharp has unusual qualifications. Added to natural gifts as an observer and describer of objective and subjective nature, he has been trained to realize both the importance of accuracy as well as the value of an attractive style of presentation. As might be expected from this somewhat exceptional combination of natural gifts and their proper development, his books take high rank among those of their class.

They can be read as easily as they are, evidently, written and we commend the present volume to those who like to read about out-of-door things without feeling that they, as well as the author, are continually laboring under high pressure.—F. M. C.

THE BIRDS OF MAINE. By ORA WILLIS KNIGHT. Bangor, Me., 1908. 8vo. 693 pages, 1 map, 30 half-tone plates.

The author tells us that "since early boyhood" it has been his hope to write a book relating to the life histories of the birds of his native state, and the present volume is therefore the realization of a life-long ambition. "For years data regarding the nesting and food" of Maine birds have been gathered, and some years ago a 'List of Birds of Maine' was published, which "served as a beginning by bringing out much information regarding bird distribution in the state. . . ."

The book opens with a key to families, and under each family we have a key to the species which occur in Maine. Brief descriptions of the plumage of each species are given, followed by a statement of its general geographical distribution and, under the head of "County Records,"

a statement of its status in various parts of Maine, with the name of the observer on whose authority the statement is made. After this we have a biographical sketch, usually based largely on the author's studies and containing, therefore, much original matter. The work, consequently, has a general as well as a local value and the author is to be congratulated on the completion of his task.—F. M. C.

IN THE OPEN; INTIMATE STUDIES AND APPRECIATIONS OF NATURE. By STANTON DAVIS KIRKHAM. Paul Elder & Co., San Francisco and New York. vii+ 223 pages, 6 full-page half-tones. Price, \$1.75 net.

Mr. Kirkham's beautifully made volume is an invitation to the open. "Nature is in herself," he writes, "a perpetual invitation: The birds call, the trees beckon and the winds whisper to us." These essays treat of a wide variety of subjects, as may be gathered from the following titles: 'Signs of Spring,' 'Bird Life,' 'Weeds,' 'Insect Lore,' 'The Winter Woods,' 'Laughing Waters,' 'The Mountains,' 'The Forest,' 'The Sea.'

Most of these chapters appear to be based on observations made in New England (why are the authors of nature essays so chary of dates and places?) but 'The Forest' was inspired by the conifers of the Sierras.

Mr. Kirkham evidently knows his ornithology and with no uncertain pen, writes of birds with the sympathy of a poet and a bird-lover.—F. M. C.

THE CHINA OR DENNY PHEASANT IN OREGON, WITH NOTES ON THE NATIVE GROUSE OF THE PACIFIC NORTHWEST. By WILLIAM T. SHAW, Assistant Professor of Zoölogy and Curator of the Museum, State College of Washington. Philadelphia, J. B. Lippincott Company, 1908. Oblong, 8vo. 24 pages, 15 full-page plates, one colored.

The remarkable increase of *Phasianus torquatus* in Oregon makes any facts

concerning its introduction and subsequent history of interest alike to the sportsman and the biologist. In this attractive little book Professor Shaw tells us that this Pheasant was brought to Oregon through the efforts of the late Judge O. N. Denny while Consul-general to Shanghai. A shipment of seventy birds sent in 1880 died *en route*, but twenty-six of a lot of thirty birds sent the following year, arrived in excellent condition and were released in Linn county at the foot of Peterson's Butte. The species was given legal protection for ten years and at the end of that time it "had become so successfully acclimatized as to withstand the most vigorous annual onslaughts," a statement which we wish were accompanied by data in regard to increase and a map showing the extent of range-extension from time to time.

In writing of the habits of the Pheasant and Sooty Grouse (*Dendragapus*) Professor Shaw records the occasional hybridization in nature of these species so unlike in habits, haunts and appearance. The full-page plates of mounted specimens of Oregon Grouse and Quail reflect credit on Professor Shaw's skill as a taxidermist and taste as a photographer.—F. M. C.

The Ornithological Magazines

THE AUK.—With the October number this steady-going journal completes its twenty-fifth volume still under the able editorship of Dr. J. A. Allen, who, ever since 1884, has done so much toward maintaining its high standard of excellence. The pages before us are bristling with local lists or brief contributions to them. We note 'Some Birds of Central Alabama' by A. A. Saunders; 'Birds of the Bellingham Bay Region' by J. M. Edson; a continuation of the 'List of Birds of Louisiana, Part V,' by Beyer, Allison and Kopman; 'Recent Bird Records for Manitoba' by E. T. Seton; 'Birds of the Region about Needles, California,' by N. Hollister; 'The Birds of the Rosebud Indian Reservation, South Dakota,' by A. B. Regan; and 'New and Unpublished

Records from Washington' by W. L. Dawson. None of these calls for particular comment although it strikes us that less sight and more gun is desirable in some cases. When, for instance, we read that the Eskimo Curlew is "well represented on the Butte Creek flats in June (1904)," we wonder what the writer really did see. We should also have liked the word "Washington" added to the title of Mr. Edison's article because complete titles are always a great convenience to many.

Mr. Ruthven Deane tells the story of 'The Copper-plates of the Folio Edition of Audubon's Birds of America with a Brief Sketch of the Engravers.' The plates, 435 in number and weighing several tons, were sold for old junk for the value of the copper. Some got into the melting pot while others were rescued at the last moment. The photographs of casts of cameos made of the author of this great work fittingly accompany an article by Dr. C. Hart Merriman on 'The King Cameo of Audubon.' These intaglios were cut by Mr. King in the early '40's.

As for Mr. E. S. Cameron's 'Changes of Plumage in *Buteo swainsoni*' we should like to call attention to the fact that no series of birds will prove the supposed changes unless specimens actually in molt are obtained. The gray birds may change to brown through wear just as the loss of the "frosting" of some Terns' feathers produces blacker wings.

A record of a Kirtland's Warbler seen by Mr. J. Claire Wood is open to criticism, first because it is of the kind that fills local lists with question marks, and, secondly, because it encourages young observers to think they see in moments of excitement what they have read they may see. It is always the rarest bird that escapes us much as it is always the biggest fish that breaks from the fisherman, and we all know how different from the bird in the bush the bird in the hand has often proved to be. And why should Kirtland's Warbler in Michigan, its summer home, be recorded at all? Other records in 'General Notes' concern species that have wandered from their usual habitat.—J. D., Jr.

THE CONDOR.—The July and September numbers of 'The Condor' still await notice. The former, an unusually large number, is chiefly made up of local lists, which include Mailliard's 'Sierra Forms on the Coast of Sonoma county, California,' Willett's 'Summer Birds of the Upper Salinas Valley,' Gilman's 'Birds on the Navajo Reservation in New Mexico' and 'Rockwell's Annotated List of the Birds of Mesa County, Colorado.' The last paper, containing 28 pages illustrated with two maps and nine photographs, is a model of its kind. It contains notes on 199 species and is probably the most complete local list for any part of western Colorado. Other articles are: Dagget's 'Bit of Early California Natural History' from Trusler's 'Habitable World Described' 1788-1795; Dixon's 'Field Notes from Alaska,' giving an account of the work of one of the parties of the Alexander Expedition; and Metz's 'Nesting of the Rocky Mountain Screech Owl in Wyoming,' presumably near Sheridan in the northern part of the state.

The September number has but 28 pages—no more than the longest article in the preceding number—but it contains several papers on birds of little-known areas in California. These papers are: Grinnell's 'Birds of a Voyage on Salton Sea,' Linton's 'Notes from Buena Vista Lake,' and Goldman's 'Summer Birds of the Tulare Lake Region.' The formation of the Salton Sea was quickly followed by an influx of water birds of various kinds, and here was found, this year, "the southernmost recorded nesting colony of the American White Pelican." The most southern point at which the species has hitherto been known to breed was at Buena Vista Lake in San Joaquin Valley. Among the southern breeding records given by Goldman for Tulare Lake may be noted those of the White Pelican, Green-winged Teal, Shoveller and Pintail. The notes on the California Sage Sparrow and Leconte Thrasher contains the first records of the breeding of these species at this locality. Among the shorter articles may be mentioned Bowles 'Notes on a

Few Summer Birds of Lake Chelan, Washington,' and Richard's description of 'An Unusual Nesting Locality for the Rocky Mountain Nuthatch,' near Littleton, Colorado, ten miles south of Denver, on the south branch of the Platte River, at an altitude of 5,370 feet. Dixon's account of a 'Family of Young Duck Hawks' on Admiralty Island, Alaska, and Willard's brief 'Huachuca Notes' complete the list of papers. The number also contains a 'Directory of the Cooper Ornithological Club' including the names and addresses of two honorary and 222 active members. The deceased members now number seventeen.—T. S. P.

Book News

'Notes on the Winter Birds of Northern Louisiana' (Proceedings Biological Society, XXI, pp. 119-124) is a briefly annotated list of birds observed by Arthur H. Howell between January 6 and February 7, 1908. Skillful work in field and study result in the addition of seven species and subspecies to Beyer's list of Louisiana birds.

Leaflets Nos. 1 and 2 issued by the Oregon State Biologist are by William L. Finley and deal in a practical way with the economic value of birds. Leaflet No. 1 discusses this subject in a general way, while in No. 2, which is well illustrated certain common Oregon birds are treated at length. It is to be hoped that the leaflets will be issued in sufficiently large editions to meet the demand which will undoubtedly arise for them.

Miss Ella Gilbert Ives, whose stories and poems of birds are familiar to readers of BIRD-LORE has issued through the Arkelyan Press of Boston a dainty little volume *Out-Door Music—Songs of Birds, Trees, Flowers, etc.* Many of the poems such as Robin's Mate, The Little Minister, The Goldfinch and Robin's Proclamation, should find their place upon Audubon Society programs, while the book will make a pretty Christmas gift for a bird-lover.

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Bird-Lore's Motto:

A Bird in the Bush is Worth Two in the Hand

WITH this number BIRD-LORE completes its tenth year. It is not for us to speak of what the magazine has been or of the influence it has exerted. We prefer to look ahead rather than behind, and are more concerned with the future than with the past.

No single feature of BIRD-LORE has met with greater approval than the colored plates of North American birds. The first one was published in December, 1903, and the series now include the Warblers, the Thrushes and the Flycatchers,¹ the concluding plate of which will appear in our next issue.

In response to the requests of many subscribers, the Flycatchers will be followed by the Vireos. Because of the small number of species in this group and of the comparatively limited amount of variation in their plumage with age and sex, this series will be completed during the year, and, still guided by the expressed wish of our subscribers, it will be followed by plates of the Sparrows.

As for other illustrations, we trust that they will come from the cameras of our readers. It is BIRD-LORE'S mission to inspire a practical interest in the study of birds in nature and it particularly urges the value of the camera as a means of graphically recording one's observations. The use of the camera, however, is not unattended by expense, as every bird photographer will testify. To remove this

objection, therefore, BIRD-LORE will pay for all photographs which it accepts for publication.

So far as text is concerned, in the earlier volumes of BIRD-LORE, nine-tenths of the leading articles were written by request of the editor, and it was our custom in this, the last number of the year, to announce the principal contents of the succeeding volume. This plan made it impossible for us to accept many contributions from our readers and, in our opinion, tended to defeat BIRD-LORE'S aim to encourage original observation with a view to adding to our knowledge of birds' habits.

We wish, therefore, all BIRD-LORE'S readers to consider the magazine's pages at their disposal for the publication of such observations as seem worthy of record. This includes not only notes for the 'Field and Study' department but more detailed studies.

The subject of serious and continuous studies, especially of the nest-life of birds, leads us to say a word in regard to the methods employed by some students, who, possessing a limitless fund of both patience and perseverance defeat their own purpose by a failure to comprehend the importance of studying their subject under natural conditions.

For example, we have lately received several manuscripts based on prolonged studies of the home life of certain birds in which the students showed a persistence, care and tirelessness deserving of far more valuable results than were obtained. Indeed the results were of little or no value wholly because the observers made no attempt at self-concealment and consequently the objects of their study were at all times aware that they were under observation and hence were either much alarmed or, at the best, unnatural.

Whether, therefore, one proposes to study the history of a certain nest or the life of a given locality, some form of concealment is necessary, and for further remarks on just what form of a blind may be used, we refer to our article on this subject on an earlier page.

AMERICAN CROSSBILL WHITE-WINGED CROSSBILL

By MABEL OSGOOD WRIGHT

The National Association of Audubon Societies

EDUCATIONAL LEAFLET NO. 35

While we may count upon seeing certain species of birds during the migrations, and are assured that the old favorites that have been known since childhood will nest in the neighborhood, yet the comings and goings of the winter visitors are surrounded by a tantalizing uncertainty.

In the bakers' dozen of these hardy voyagers of the air, we may, in the eastern and middle states, include the familiar Junco, Tree and White-throated Sparrows, the Winter Wren, Brown Creeper, Golden-crowned Kinglet, Northern Shrike, the occasional Snowy Owl, the haphazard Snowflake, Redpoll, Longspur, and the wholly irresponsible Crossbills. At best, the presence of these birds, with the curiously specialized beaks, depends upon the presence of cone-bearing trees, for cone seeds are their winter fare.

If on a clear, cold winter morning, soon after a snow-fall, I hear a clear metallic call-note high up among the spruces, I know that the Crossbills have come. On going out under the same trees to prove the sound by a glimpse of the birds themselves, the calling stops, and instead, as I pause to listen and focus my glass on a particular bird of bright hue, a rustling noise, akin to the falling of dry and somewhat heavy leaves, mingles with a few colloquial twitterings, as if the birds were talking to themselves, parrot-fashion; this rustling being caused by the shelling off of the cone scales, as the Crossbills feed upon the seeds that lie between.

As for the bird itself, or rather birds, for, as often happens, a mixed flock has settled among the spruces. Few of the white-winged species are mingled with their more plentiful wholly red brothers, while the mottled olive-green of the females and young of both species make the party consist not of birds of a feather, but of three distinct plumages, enough in itself to confuse the novice who is gazing at the first Crossbill of his experience.

Let us stand off a bit, back braced firmly against a tree, and examine the nearest bird in detail, as he hangs, head downward, on a long cone with all the nonchalance of the up-side-down Chickadee. In length the Red Crossbill is a trifle smaller than the English Sparrow; the body of the male is a dull brick-red, brighter on the rump and rusty in the middle of the back, shading to lead-gray or *juscous* on the wings. The



RED CROSSBILL

Order—PASSERES
Genus—LOXIA

Family—FRINGILLIDÆ
Species—CURVIROSTRA MINOR

female is of a dull olive-green, with dark mottlings on head and back and some white below; while the young may be marked like the female or show a mixture of red and green. But one characteristic marks alike male, female and young, telling you their family name as plainly as the Chickadee calls his name—the tips of the beak, or *mandibles*, are *crossed* as if they had been wrenched out of joint.

There is no other species of bird with a beak precisely like this. *Parrot-like* is a term frequently applied to the Crossbills, but though they live in flocks and climb about using their claws very much like hands, in parrot-fashion, the likeness does not extend to their beaks. The upper half of the hooked bill of the Parrot closes over the lower so as to almost conceal it, but lacks the warp that names the Crossbills. So much for identification.

This Red Crossbill is usually the most common species seen in the eastern and middle states, though at times they may be outnumbered by the White-winged Crossbill. The latter is a mere fraction smaller in size and differs chiefly in having *two white wing* bars, white on the belly and a decided *pinkish* tint to the upper parts of the body and breast. Both species have a swift dipping flight suggestive of that of the American Goldfinch, some of their call-notes when on the wing also resembling those of their jolly little yellow brothers.

While the White-winged Crossbill breeds quite regularly northward from the northern United States, and appears only in its winter wanderings as far south as Virginia, the Red Crossbill seems to be bound by no law as far as its nesting habits are concerned, and it is perfectly possible to find a pair of them nesting almost anywhere in New England. Perhaps on account of its being the best known species we know more about the nesting habits of the Red Crossbill. The nest itself is made of roots and twigs, moss-lined, and is usually well up in an evergreen tree; the eggs are dull green, spotted on the large end with brown and lavender.

Dr. Coues mentions a nest found in Maine in the month of February, and a nest has been found in East Randolph, Vermont, so early in March

Nest that the ground was covered with snow and the weather was very severe. The parents were so devoted to their young that they could be lifted from the nest by hand. Mr. E. P. Bicknell has also found a nest on April 22, in New York near the Connecticut line. Apropos of their early nesting is the following note, which appeared in BIRD-LORE:

NESTING OF CROSSBILLS

[Sir James M. Le Moine, of Quebec, well known for his works on Canadian birds, sends us the following interesting note by a personal friend on the breeding of Crossbills in March.—ED. BIRD-LORE.]

“Quebec, 25th March, 1901.

“DEAR SIR JAMES: About ten days ago I happened to be with a friend in the woods, in the vicinity of the Grand Lac, Bastonnais. In the course of one trip we had to visit several lumber camps and were told by choppers that they had during the winter, in February and March, cut down many spruce and fir

trees containing nests full of young birds. We refused to believe the story unless we saw the 'young birds' with our own eyes.

"At one of the camps we found a man who told us that he would endeavor to find a nest that he had thrown aside a few days before which contained three young birds. He was away for a short time and returned with one of the young. It was only partially fledged and had been hatched, I should say, about ten days previously. The young bird was not a Pine Grosbeak, but a Crossbill, of which there were thousands all over that section of the country. The cock birds were in their courting dress—little balls of scarlet—and singing all day as in early June. The nests are made of moss, about the size of a football, walls about two inches thick and a small hole for the happy pair to enter their snug little home.

"Sincerely yours, E. JOLY DE LOTBINIERE."

Of the White-winged Crossbill Dr. Coues writes: "The Crossbills of both species are birds of the most strongly marked originality of character, and it is never safe to predict what they may or may not be found about. Their most remarkable habit is that of breeding in *winter*, or very early in the spring, when one would think it impossible that their callow young could endure the rigors of the season. They are the most devoted parents, seeming entirely insensible of danger in defence of their homes; and at all times, indeed, betray a confidence in man that is too often misplaced, and that seems the height of folly to one who knows as much of human nature as most people find out, sooner or later, to their cost.

"These birds are much attached to pine woods, the seeds of the conifers furnishing them abundant food, of a kind that their curiously shaped bills enable them to secure with great ease and address. From their summer resorts in the depth of evergreen woods the Crossbills come, flocking in the fall, to all other parts of New England and beyond, generally associated with Pine Grosbeaks and Redpolls, always gentle, unsuspicious, and apparently quite at their ease.

"They are not so common, however, as the Red Crossbills are, and both species take such freaks in deciding their course of action that their appearance can never be relied upon.

"It need surprise no one to come upon a pair of Crossbills breeding anywhere in New England; . . . for they seem to be quite independent of weather or season.

"Their diet is not so exclusive as many suppose; the birds may sometimes be seen helping themselves to decayed garden fruits. Mr. Maynard has observed them feeding on the seeds of beach-grass, and has also found the stomach filled with canker-worms. . . .

Food The eggs of this species resemble those of the Purple Finch, and are probably indistinguishable from those of the Red Crossbill. Both species of Crossbills have a chattering or rattling note, usually uttered as they fly, but their true song is seldom heard south of their nesting grounds." (Stearns and Coues, New England Bird Life.)

Ralph Hoffmann describes the call-note of the Red Crossbill as a "loud *kip-kip*, *kip-kip-kip*, very like a note made by young chickens," but to me it has a more metallic quality.

If one has no evergreens immediately about the house, the Crossbills may be coaxed to come near by fastening ears of the small kernalled "popcorn" firmly to conspicuous branches or even by unsalted popcorn balls. As might be expected, a bird of such unique construction has given rise to many speculations, some scientific, others legendary and sentimental, as to its origin. If its beak is a development to meet food conditions, will it be gradually modified by the cutting down of the forests of conifers? Or will it slip away with other extinct species like the Auk and the Labrador Duck?

Questions for Teachers and Students

(1) Describe the bill of the Crossbill. (2) How does the bird use it? (3) Describe the plumage of the American Crossbill. (4) How does the adult male differ from the female? (5) What is the range of the Crossbills? (6) Do they come to us regularly? (7) What is their food? (8) At what season do they nest?



The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by WILLIAM DUTCHER

Address all correspondence, and send all remittances for dues and contributions, to
the National Association of Audubon Societies, 141 Broadway, New York City

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	CHARLES E. BROWN, State Historical Library, Madison

Annual Meeting of the National Association

The fourth annual meeting of the National Association of Audubon Societies was held October 27 in the American Museum of Natural History, New York City. Members were present from several states.

The President called the attention of the Association to the proposed reduction in the number of Directors from thirty to eleven, of which notice had been sent to the members of the Association. It was considered very much wiser to have a

smaller Board so that at least a majority of the members would constitute a quorum. It was also suggested that an Advisory Board should be created to consist primarily of those members of the present Board of Directors who find it impossible to attend the meetings of the Board by reason of their residing, in most instances, many hundred miles from the office of the Association.

The following resolutions were unanimously carried:

"Resolved that the number of Directors of the National Association of Audubon Societies for the Protection of Wild Birds

and Animals be reduced from thirty, its present number, to eleven.

"Resolved Further that the Directors of the Association be authorized and directed to sign, acknowledge and file a supplemental certificate specifying such reduction."

At a meeting of the Board of Directors of the Association held on October 28, a quorum being present, the following changes in the By-Laws of the Association were presented by the Attorney, Mr. Samuel T. Carter, Jr.; notice of the proposed amendments having been sent to all members fifteen days previously in accordance with the By-Laws.

"The first paragraph of Article III to be amended to read:

"The control and conduct of the property and business of the Association shall be vested in a Board of Directors not to exceed eleven in number. The board shall be divided into five classes which shall be equal in number except that the first class shall consist of three members. This first class shall serve until the next annual meeting after its election and the others, for one, two, three and four years thereafter; respectively. Thereafter at each annual meeting those whose term of office may then expire shall be succeeded by a like number of Directors to serve the full term of five years. All Directors shall be elected by a majority vote of the members present."

The third paragraph of Article III was amended by providing that six Directors, and not five, shall constitute a quorum.

The third paragraph to be amended to read:

"Regular meetings of the Board of Directors shall be held on the last Tuesday of October and of every alternate month thereafter, except that when that day falls on a legal holiday the meeting shall be held on the following day.

"Special meetings may be called by the President or by any five members of the Board, the special object of the meeting being given in the call. Ten days' written notice of any special meeting shall be given

to each member of the Board at his last known address. Six Directors shall constitute a quorum for the transaction of business.

"Upon the resignation or death of any member of the Board of Directors, the Board may proceed to elect a Director in his place to serve until the next annual meeting."

Article IV to be amended by striking out the word "standing" in the second paragraph.

Article V to be stricken out and the following to be substituted.

"There may be chosen by the members of the Association from among their membership or otherwise at any annual meeting what shall be known as an Advisory Board consisting of not less than ten nor more than thirty members, of which Board the President of the Association shall be ex-officio a member and at whose meetings he shall preside. Members of this Board shall serve annually or until their successors are appointed. No meetings of this Board need be held and it shall have no control over or management of the affairs of the Association, except as the Board of Directors may desire from time to time to submit any matters to it. In such case, meetings of this Board shall be held on ten days' notice from the President of the Association."

The above amendments were adopted separately and thereafter adopted as a whole by a unanimous vote of all of the members of the Board present.

The following officers were elected for the ensuing year: President, William Dutcher; First Vice-President, Dr. T. S. Palmer; Second Vice-President, Dr. J. A. Allen; Secretary, T. Gilbert Pearson; Treasurer, Dr. Jonathan Dwight, Jr.

The President stated that Mr. Gifford Pinchot had invited the Association to appoint a Committee to cooperate with the National Conservation Commission. By direction of the Board the following Committee was appointed: Chairman, Mr. Edward Howe Forbush, Dr. T. S. Palmer, Frank M. Chapman, T. Gilbert Pearson, William Dutcher.



LAUGHING GULLS ON BATTLEDORE ISLAND, ONE OF THE LOUISIANA RESERVATIONS
Their tameness is the result of absolute protection. Photographed by Herbert K. Job

Annual Report of the National Association of Audubon Societies for 1908

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ADDRESS OF THE PRESIDENT

ANNUAL MEETING 1908

MEMBERS OF THE NATIONAL ASSOCIATION: What this Association has accomplished during the few years of its existence speaks for itself, and it may be truly said, I think, that very few organizations of a mixed character, such as the National Association, which is partly philanthropic and esthetic, but mostly economic, have made such great strides in the estimation of the public, as well as in benefits conferred on the citizens of the country. When our work was started, there were few laws for the protection of wild birds and animals, especially those that are beneficial to agriculture and forestry; today this condition is entirely changed. Further, a sentiment for the protection of wild life could hardly be said to exist; today such a sentiment is widespread and is fast growing, owing to the educational work of the Audubon Societies through the press and by illustrated leaflets. What has been accomplished is a monument to the faithful and intelligent work of a few hundred people scattered throughout the country. Today, I can point with pride to a strong and thoroughly equipped organization, virile and full of activity and promise for the future outcome of the work of the National and State Audubon Members. The past is gone, and your President's brief address will be of plans for the future. Every well-organized and successful business follows a plan which has been studied and outlined in detail

in advance, and the future success of the work of this Association can be guaranteed only by a strict and rigid compliance with such a rule. To that end, I submit to the members of the National and State Audubon Societies an outline for future work, and some suggestions of how it may be carried on to the best advantage. Properly, the work may be divided into four heads, as follows: Finances, Education, Legislation, Reservations and Wardens.

FINANCES

The financial proposition is treated of first because without funds the entire work falls to the ground, and this the public must understand. This organization is doing a voluntary work of inestimable value to the country at large, and the citizens must support it. The foundation of all the wealth of the country is based on its agricultural and forestry products, and without birds such products would be impossible. The annual loss from insect and rodent pests at the present time is estimated to be \$800,000,000. When the public begins to think about these figures and realizes that this annual loss may be reduced by such work as ours, I feel sure that an adequate support will be forthcoming. If it is not, this generation is simply robbing children yet unborn. This is a terrible charge, but it is a true one. If we permit the heritage of wild birds that still exist to be wasted and destroyed, we are robbing our children. We are simply trustees, and should seek to enlarge the estate in our care rather than squander it. The public, as trustees, are in honor bound to preserve the wild birds for those that follow us. We do not wish our children to feel about us as we do about our fathers, who permitted the wanton and useless extinction of the Bison and the Wild Pigeon. The income of the Association during the past year, as reported by the Treasurer, was \$24,000. When it is apportioned among the several branches of our work and is divided among the forty-eight states and territories, each section gets but a very small sum. This sum should be multiplied many times. We need an endowment of several millions of dollars in order to expand our legitimate work. Is there any more worthy or meritorious work than ours? If you wish to endow and further education, give to the National Association a substantial fund to be devoted to educating the public of the country to the value of birds and their intimate relation to agriculture and forestry. This subject is of as great importance as sanitation, medicine, pure science or civics, to which millions of dollars are given each year. It is a serious question whether the preservation of birds is not of greater importance than either of the above subjects; for, without birds, it is a probable fact that the world would be uninhabitable. If you cannot endow, either during your lifetime or as a deviser, you can at least show your sympathy and give your support by becoming a life member or an annual sustaining member.

I realize that there are but few people who are qualified by wealth or spirit to create great endowment funds for special purposes, but there are some, and

to such I appeal for help at this time as well as in the future. Later, I will detail many special objects, any one of which is worthy of a fund of liberal size. The general public means you, and you can at least contribute once a year the small sum of \$5, or, if you prefer, a life membership of \$100, which will produce an annual fee in perpetuity. You will then have the satisfaction of knowing that your good deeds will follow you long after you have done with life's work. This appeal is not one to be passed by lightly and thoughtlessly. It is of too great an interest to you personally, for I know that no matter what your occupation in life is and just how you toil for your daily bread, somewhere the welfare and protection of birds touches and is of moment to your daily vocation. Surely, under these circumstances, you will be willing to do your part toward caring for creatures that are so intimately woven into your daily life and well-being. I forbear to touch upon the esthetic aspect of this question; the economic feature is of such momentous interest to you personally that no other incentive should be needed to cause you to do your part in this work.

EDUCATION

Try to imagine what the result would be in a generation or two if all the schools and educational institutions were to be closed. Ignorance and its sister, Crime, would take the place of peace and civilization. It is a sad fact that today there is too much ignorance regarding birds and their relation to the human race. It is a rare occurrence to find a person who can name a dozen of the common birds that may be found about his home, and it is still more difficult to find one who can tell how each bird is benefiting him. How wide-spread this ignorance is may be illustrated by the fact that a prominent paper recently published an editorial in which it recommended the extirpation of all Sparrows, on the ground that the European House Sparrow is a public nuisance. The editor, who should have been able to form correct public opinion, was so ignorant of birds that he was not able to differentiate between the great number of native Sparrows and the introduced pest.

There should be a great fund established under the direction of this Association, to carry on the work of education regarding birds.

Press Bureau.—In order to bring more rapidly to the notice of the public the vast importance of bird protection, I urge the expansion of our press bureau. There is no surer or more rapid method of diffusing knowledge of birds than through interesting, but absolutely correct, stories of their habits and value. A large part of the success of the Audubon work may be attributed to the articles that appear at frequent intervals in the most widely read papers of the country. The first knowledge that our great benefactor, Mr. Willcox, had was derived from a newspaper item regarding the Audubon Societies; this fact alone warrants not only a continuation, but an expansion, of our press bureau. In this way, every hamlet can be reached at the minimum of expense.

Educational Leaflets.—A liberal portion of the educational fund should be used to increase our series of Educational Leaflets, illustrated with correct drawings in the natural colors of the birds, and giving a brief résumé of the habits of the bird, and especially of its economic value. It is of vital importance that Leaflets should be used in every public school in the country, especially those in the rural districts. There are a thousand species of wild birds in North America, each one of which is of greater or less value to humanity, and every child in the country should be able to recognize at sight the more common ones that are to be found in his locality, and should also be able to give some of the reasons why such birds are of benefit to him.

Our Educational Leaflets are the quickest and surest method of bringing this knowledge to the millions of school children of the country. In order to encourage among school children the practice of studying the habits of birds in the field, I strongly urge offering medals for the best essays on birds, based on original observations. I recommend a silver medal for each state, and a gold medal for the United States. Such a competition among the school children of the country would produce splendid educational results.

Field Agents.—The work of our field agents has secured results that are most gratifying, and fully warrant a very greatly increased staff of such important helpers. Instead of having a lecturer and organizer to care for ten states, on the average, we should have at least one for each state, and, where the commonwealth is very large and populous, there should be two or three. It is a well-established fact that the quickest method of getting good returns in sentiment and interest is to have a well-equipped person give illustrated bird lectures. The experience of this Association is that, wherever it has done the most work of this character, it has found it the easiest to secure good bird and game laws and the least trouble in their enforcement. There are several states where it is imperative that lecturers and organizers should be established at once; for in them, in the past, all of the efforts made have proved futile, owing to the fact that sufficient preparatory educational work had not been done. A great part of the hoped-for educational endowment must be used to increase our field staff.

Traveling Lecture Outfits.—Supplementary to the work of the field agent, a large number of circulating lecture outfits can be used to advantage. These consist of a box of colored slides of birds, a small lantern to exhibit the same, and a descriptive lecture to be read by a teacher, Master Granger, or any interested person. Such an outfit costs about \$150, and it can be kept at work almost constantly. There is a steadily increasing demand for these outfits, and at least one hundred of them could be used to advantage.

One of the most practical methods of educating adults about birds is to make exhibits at agricultural fairs. A comprehensive exhibit, when once established, can be moved from place to place with slight expense. The good done by such object lessons of the value of birds to agriculture and forestry is very marked.

LEGISLATION

I urge the foundation of a fund to be devoted to the legislative work of this Association. The public cannot realize how very important this branch of the work is, and how necessary it is to maintain eternal vigilance. To illustrate: After considerable hard work, a satisfactory bird and game law is secured in a state. You may think this is the end of the story, and that our work is finished in that locality, but it is not. In some states, a session of the legislature is held annually, but, fortunately, in most of the Commonwealths, biennially. Every session of a legislature must be closely watched, in order to prevent amendments to our law that would weaken it. This requires that copies of all bills introduced must be promptly obtained, and that the Association be kept informed of the Committee to which the bill is referred, and also of the dates of hearings by the Committee. When the bill is an important one, a representative of the Association must be present at the hearing and speak for or against it. The above outline is simply what has to be done each year to prevent undesirable legislation in one state; when it is multiplied by all of the states holding legislative sessions (forty-four in the coming winter), you can fairly judge of the magnitude of this branch of the work.

When the Association initiates legislation, which it very often does, success demands even greater efforts. In the matter of bird legislation, there is no resting-place; the only price of satisfactory bird protection is eternal watching of legislatures, for in an unguarded moment an amendment may be passed that will undo the work of years. Our field agents are experts in legislative work; but human strength has its limits, and they cannot respond to more than a fraction of the calls made upon them. In addition to watching forty-four legislatures for undesirable bills, the Association proposes to initiate the following new legislation this winter.

Game-bird Protection.—Anti-spring-shooting bills for Massachusetts, Rhode Island, Michigan, North Dakota, and Southern New Jersey. Until all spring shooting is prohibited, game birds will decrease.

Non-sale of Game Birds.—Bill to prohibit sale of any kind of game birds in New York state during the close season. Permission to sell game in the close season practically lengthens a season.

Non-game Bird Protection.—Bills to strengthen the plumage section in several state laws, notably in New York. This must be done in order to stop the sale of wild birds' plumage, especially that of the White Herons, and several other birds that are becoming alarmingly scarce.

Big Game Protection.—Bills to obtain increased protection for antelope, especially by securing a close season for several years in states where there is now an open season, viz., Kansas, Montana, Nevada, Oregon, Washington and Wyoming. The antelope is an animal of special scientific interest, as it is found in no other portion of the world. Our stock of the graceful prong-horn

is becoming very low, and means should be taken at once to prevent their extermination. In this connection, the Association hopes to secure the necessary funds to conduct experiments in winter feeding of antelope, elk, and other big game in the West. It is proposed to lease or buy suitable tracts of land, and grow alfalfa and other forage for such animals.



SNOWY HERON BROODING

Note the display of "aigrette" plumes. The almost total extermination of these Herons in this country was caused by the millinery demand for the "aigrette." Photographed on Louisiana Audubon Reservation by Herbert K. Job.

We also hope to coöperate in establishing a national bison herd in Montana, and in securing a close season for mountain sheep in Oregon.

Hunting Licenses.—Bills in Ohio, Iowa, Florida and Texas for resident licenses. Such licenses are a great additional protection to birds and game, and the fees derived from the sale of licenses furnish a fund to be used for the protection and propagation of game; this obviates the necessity of a special tax for that purpose.

Warden Service.—Bills to establish in Arkansas, Florida and South Dakota State Game Commissions. It has been found that game and bird laws are useless unless there is some official charged with their enforcement.

Warning Notices.—During the present year, permission was obtained from Postmaster-General Meyer for this Association to display its warning notices in all of the postoffices in the United States. These notices, printed on muslin for permanency, contain a brief résumé of the state game and bird laws, the Lacy (Interstate Commerce) Act, and the name and address of the Commissioner and State Audubon Society. To guarantee the expense of such a display of warning notices in every postoffice in a state might easily be assumed by a citizen who takes interest in good civics and the welfare of his home state. The amount of benefit assured under this plan is incalculable, for it prevents the plea of ignorance of the law by its violators.

RESERVATIONS AND WARDENS

Through the means of reservations, this Association has been able to demonstrate to the public the practical value of bird refuges. Whether the land has been set aside by the Federal Government, or is held under lease by the Association, the wardens who guard the birds occupying the reserves are paid by this Association, and this additional but necessary tax upon our resources has grown very rapidly during the past year, and bids fair to expand very greatly in the near future. The possibilities for good of this feature of Association work are so full of promise that I am warranted in making a special and urgent appeal for a large fund to be devoted entirely to the acquisition of bird refuges and the proper care of the same. The refuges already secured are for sea-birds, and, in addition to many more of these, there should be established refuges for land birds, especially such as Grouse and Quail, where experiments in propagation could be made. If the tract were large enough and had within its borders ponds, lakes, streams and marshes, the experiment could be made to cover wild fowl also. Here also might be found an opportunity to carry on experimental work with methods of attracting birds by artificial breeding-places, in order to demonstrate their real value to agriculture and forestry. It is impossible for me, in the space at my disposal, to more than hint at the wonderful results to the country that may be achieved in this direction; moreover, on such reserves scientific forestry might be practiced, and the reserves thus be made self-supporting in time. The plan of reserves must appeal to every enlightened citizen of the country, especially those who are nature lovers, and who deplore and would prevent the wasting of our natural assets; further, the educational value of the experiments conducted on such reserves would be very great, and would no doubt influence individual owners of large tracts of land, as well as municipalities, to apply the same methods on their estates and park lands.

In conclusion, I wish to emphasize the thought that the National Association

of Audubon Societies is thoroughly equipped to carry on the work of wild bird and animal protection, which is now known to be one of the most important branches of public endeavor for the advancement of our country's interests. How rapidly this work may be extended depends entirely upon the public itself. If this appeal falls upon unwilling ears and hearts, our progress will be slow, but if, on the other hand, our plans and suggestions outlined meet with the sympathy and support that they deserve, progress will be very rapid. Let me revert once more to my starting point. If you are the custodian of great wealth, devote a liberal share of it to this great civic and economic movement, or, if you are able to bear only a small portion of this burden of good, do it cheerfully and promptly.

REPORT OF T. GILBERT PEARSON, SECRETARY

In attempting to report a year's progress in the Audubon movement, one is necessarily limited largely to a statement of what has been undertaken in the various lines of endeavor, and to a chronicling of such tangible results as are apparent. Signs of a wide-spread crystallization of public sentiment for the better protection of wild birds and animals are annually becoming more apparent throughout America, and, even to observers who are but casually informed on the subject, the paramount influence which the Audubon Societies exert on the movement is a most pronounced one.

EDUCATIONAL WORK

The educational phase of the Audubon work has been pushed the past year with unabated vigor. Six new regular Leaflets have been published as follows: Herring Gull, Snowflake, Song Sparrow, Barn Swallow, Tree Swallow and Ruby and Golden-crowned Kinglets. In addition to the above, six special Leaflets have been printed. These are: For December—Six Reminders; The Cost of a Feather; February Hints; Winter Feeding of Wild Birds; Bob-white, The Farmer's Friend; and Putting up Bird Boxes. With two exceptions, all of the above-named papers of both series were written by our splendid worker, Mrs. Mabel Osgood Wright.

Twenty-nine thousand copies of these Leaflets were purchased by the State Audubon Societies of Massachusetts, North Carolina and New York; while over seventy thousand copies have been distributed from the New York and Greensboro offices of the Association.

A larger number of public lectures have been given by the officers and agents of the Association than formerly. Mr. Finley has spoken many times in the Northwest; Mr. Kopman in the lower Mississippi states; Mr. Forbush in New England; Miss Mary T. Moore, School Secretary, in Virginia and the Carolinas; Captain Davis in Texas; Mr. Job in various eastern states; Mr. Bowdish, Chief

Clerk in New York Office, in New Jersey; Mr. Chapman, our Treasurer and Editor of *BIRD-LORE*, in many of the eastern states, and President Dutcher at various points in New York and New Jersey. These addresses have been given usually with a view of arousing interest in securing better feeling to support advance legislation for bird and game protection. In some states, notably Connecticut, Massachusetts and Louisiana, the legislative results have been most gratifying.

The power of the press as an educational agent has long been recognized and used by the Association. Through a news agency twelve syndicate articles on various phases of the work have been sent to over three hundred of the leading papers in the United States. These articles have been copied in many hundreds of local papers, even getting into the "patent insides" and reaching the most remote corners of our rural communities. In addition to these, articles and interviews have been given out by the various officers and agents, while notices and comments of lectures and editorials inspired by these have combined to keep the Audubon work well before the American public.

The collection of stereopticon views illustrating wild-bird life has been enriched, and several sets of these have been sent out to be used by interested workers, many of whose names do not appear in this brief report. The Association also sends 1,200 copies of *BIRD-LORE* to members and contributors.

LEGISLATION

During the year sixteen states held either regular or special sessions of their legislature. We kept in close touch with all these, and when any changes in the bird protective laws were contemplated, either an officer or agent of the Association was present in person. In Georgia, Mississippi, Maryland and South Carolina, bills were introduced to place more restriction on hunters. These, however, all failed of passage. Only one actual backward step for bird protection was taken by a legislature. This was in Virginia, where the Audubon law was amended in such a way as to remove all protection from Hawks, Owls, Eagles, Blackbirds, Ricebirds, Bobolinks, Doves, Wilson's Snipe and Robin Snipe. The Association is now conducting an active campaign in Virginia with a view of remedying this evil at the next session of the General Assembly.

The Audubon workers are responsible for the passage of a splendid bird and game law in Louisiana. This new statute provides for a State Warden force to work under the direction of a Board of Commissioners, and is supported financially by a resident, non-resident, and alien hunter's license tax. The chairman and executive officer of this commission is Mr. Frank M. Miller, who for years has been doing such splendid work as President of the Louisiana Audubon Society. Strenuous efforts were made by the New Orleans dry-goods firms to repeal that part of the Louisiana Audubon law which prohibits the sale of the plumage

of birds or parts thereof, whether taken within or without the state. We were entirely successful in defeating this measure.

In Rhode Island, we aided in the passage of two very helpful measures; one of these prohibits the killing of Shore Birds from January 1, to August 1. The other provides for increased appropriations of state funds for the game commission.

In New York State, the entire bird and game law was revised at the suggestion of Governor Hughes. Among other important features, the new statute protects the Wood Duck at all times. New York is the third state to take this wise measure for the preservation of this beautiful and fast-vanishing game bird.

Massachusetts, as usual, took additional advanced ground in game protection. The powers to the wardens were enlarged, gray squirrels were declared protected entirely for two and a half years, and provision was made for the appointment of a State Ornithologist. We are much pleased to announce that our New England Agent, Mr. E. H. Forbush, has since been appointed to this important office.

RESERVATIONS

Nine additional reservations have been formed during the past year by President Roosevelt upon the recommendation of President Dutcher. These are Mosquito Inlet on the East Coast of Florida, Tortugas Keys, Florida; Key West, Florida; Lower Klamath Lake, Southern Oregon and Northern California, Lake Malheur, Oregon, Chase Lake, Dakota; Pine Island, Matlacha Pass and Palma Sola, all on the Florida Gulf Coast. In all, there are now twenty-three National Reservations under the care of this Association.

WARDEN WORK

During the year, forty-nine duly appointed wardens have guarded the breeding colonies of birds which are protected by this Association. These wardens are located as follows: In Florida, six; Louisiana, six; Maine, fifteen; Massachusetts, one; Michigan, two; Minnesota, one; New Jersey, two; New York, two; North Dakota, one; Oregon, one; South Carolina, one; Texas, one; Virginia, seven; Washington, six.

Forty-seven species of birds have received special protection by the activities of these officers, while incidental protection has been afforded to many more. The most numerous species in the colonies of the Atlantic Coast are Herring and Laughing Gulls, Brown Pelicans and various species of Terns. On the preserves in the interior are Ducks, White Pelicans, Gulls and Grebes; and on the Pacific Coast, Cormorants, Puffins, Murres, Gulls and Petrels. Practically every protected species in these colonies shows a marked increase in numbers. In many instances the wardens are able to keep a very close watch on the actual

number of eggs laid and young raised. In other cases where the birds gather in great masses, or are extended over wide areas, it is impossible to form an exact estimate of their numbers. However, we believe that the reports of the wardens are sufficiently correct to prove of interest. These show that during the past year the birds which gathered in the protected colonies numbered something over 658,500. The number of eggs believed to have been laid was 296,100, and the number of young raised was 227,731.

As usual, many eggs and young were lost as a result of storms and high tides, but it is believed the colonies suffered little from the depredation of eggers, while the guarded territory is thought to have been entirely free from inroads of the millinery-feather gatherers.

SECRETARY'S WORK

Besides conducting the ever-increasing correspondence and general work of the Southern office, your Secretary has spent much time in the field representing the Association in various capacities. In the interest of legislation, he has visited Florida and lectured at various places in Virginia. At the Summer School of the South at Knoxville, Tenn., he conducted for three weeks a class in bird study of over one hundred Southern teachers, besides giving public stereopticon lectures. He attended the Indiana State Audubon Society meeting at Fort Wayne, the International Conference of Fisheries held in Washington City, and various public gatherings in North Carolina, at many of which he gave addresses on bird protection and the Audubon work. He made a tour of inspection through South Carolina and secured evidence of many violations of the Game laws. For example, one hotel was found to have in cold storage 3,000 Quail, which were being served illegally to the guests. His work has also brought him to New York on various occasions to canvass for funds and for conferences with the President.

REPORTS OF FIELD AGENTS

REPORT OF EDWARD HOWE FORBUSH

The work undertaken by your agent in New England during the year has included the following principal lines of action: (1) Educational and publicity work, (2) legislative work, (3) investigation of the present status of the wild fowl, shore-birds and sea-birds and measures needed for their protection, (4) the work of organization.

A new feature of the educational work consisted in the publication, in fifty New England newspapers, of a series of articles on birds and bird protection, written monthly or semi-monthly as time allowed. This series has been continued through the year. Eighty-two talks and lectures on the utility of birds and the means of attracting and protecting them have been given in Connecticut, Rhode Island, Massachusetts, New Hampshire and Maine. The audiences have consisted mainly of students of universities, colleges and schools, and members of clubs and farmers' organizations, aggregating nearly twenty thousand people. Most of these talks were illustrated with lantern slides or colored charts. They have resulted in a great deal of practical work among the young people, many of whom have begun to feed birds and put up bird-houses. No work has been done in Vermont this year; but it may be possible to reach that state before the end of the season.

The detailed results of the legislative work of the year have been given already in BIRD-LORE, but may be reviewed briefly here. This work was interfered with somewhat by lecture engagements, and owing to this and certain peculiar conditions was not uniformly successful; but all bills adverse to bird protection were defeated. In Massachusetts, the following were the principal bills passed: An act requiring the licensing of all resident hunters, another giving the deputies or game wardens the right to arrest, without a warrant, suspected persons refusing to exhibit their game on demand; another shortening the open season on upland game-birds, two establishing state forest tracts or reservations, and one establishing the office of State Ornithologist.

The first two acts will help much in the enforcement of the laws for the conservation of game and birds. The establishment of an official State Ornithologist in every state of the union would be a benefit. Such an official could save the people of any state far more than his salary each year by instructing the people in the economic value of birds and the necessity for their protection.

In Rhode Island an act was passed establishing a close season on all shore birds from January 1, to August 1, thus giving shore-birds their first real statutory protection in that state, and an additional appropriation was secured for the use of the Bird Commissioners. No other New England state has legislative sessions in 1908 except Vermont, where the legislature does not convene until October, or after the date of this report.

Educational and legislative work occupied most of the time, until June, when the investigation into the status and present needs of the wild-fowl and shore-birds was begun with a view to representing the facts to the legislature of Massachusetts at some future time. The haunts of these birds were visited and much evidence was obtained from sportsmen, gunners and naturalists, regarding the former abundance of the birds and their present depletion. This work is still incomplete. In July, all the time that could be spared from correspondence and educational work was given to an investigation of the condition of certain Gulls, Terns, Herons, Sandpipers and Plover along the Massachusetts coast. Seven trips were made to the remoter coasts and islands. The Gulls and Terns were seen to be increasing under protection, with the possible exception of the Least Terns, which are still very few in number and not favorably situated for protection. The number of Common and Roseate Terns seen on these coasts and islands may be estimated safely at between twenty-five thousand and thirty thousand. Even the Laughing Gulls of Muskeget, which were nearly exterminated at one time, now number fully a thousand (estimated), and their distribution to other localities apparently is beginning. A few Herring Gulls now remain for the summer. The Piping Plover seems to be nearing extermination. Only one colony was seen and elsewhere only an occasional pair or two were met with. A Massachusetts law allows the shooting of these birds in July and August, when their young are still small, and thus far the legislature has refused to amend this statute. The colony of Least Terns and Piping Plover at Katama Bay can be saved only by keeping a warden there all summer and stopping all shooting. It is hoped that this may be done another year. Upland Plover appear to be increasing slightly under protection in two localities, but Killdeer Plover are close to extermination in Massachusetts. The Night Herons seem to be now holding their own.

The work of organization has consisted in part of spasmodic attempts to increase the numbers or efficiency of some of the state Societies. Some addition was made to the membership of the Massachusetts Association through the efforts of your agent, and a great deal of work was done to organize the members of granges, women's clubs, and other organizations in behalf of bird protection. A trip to Bar Harbor in August resulted in awakening some interest in bird protection there, and securing some influential members of the summer colony as members of the National Association. One lesson derived from the experience of the year is found in the great and growing demand for educational work. Your agent might have made arrangements to give at least 600 illustrated lectures to farmers' organizations, schools, etc., had his time permitted. A first-class lecturer on the utility of birds, the necessity for their protection, and the means to this end is needed in every state, and his time would be fully occupied. The demand for such work is tremendous and its results would be immediate. During the legislative season another man is required in each state to organize the forces of bird protection and lead them to victory. Such a man could devote



PORTION OF A COLONY OF WHITE PELICANS ON MALHEUR LAKE RESERVATION
The center bird is feeding young. Large colonies of these birds are found on both Klamath and Malheur Reservations.
Photographed by Finley and Bohlman

his time to strengthening the National Association and the State Associations and increasing their membership and income during the rest of the year. Thus twelve men could be used to advantage in these states.

It is impossible for your agent in New England to do the work of twelve men, but he believes that the time will come when the importance of this work will be recognized, and then the means and the men will be forthcoming.

REPORT OF WILLIAM L. FINLEY

On May 14, 1908, Mr. Herman T. Bohlman and I left Portland to make a study of bird life in southeastern Oregon, with the hope of reporting on conditions and securing additional reservations for the protection of our water fowl. The trip was taken in Mr. Bohlman's 'White Steamer' which was specially remodeled and arranged with complete camping outfit. The machine was shipped to The Dalles by boat, and from there we traveled straight south through Shaniko and Prineville to Burns. The roads were often rough and steep, but we reached Lake Malheur without accident, after a 300-mile run.

Lake Malheur is a body of water about twelve by fifteen miles, and, like the other lakes through southern Oregon, has a vast area of tule land surrounding it. Malheur differs from Harney and Klamath Lakes, in that it is a shallow body of water only a few feet deep, and abounds in a great variety of plant life. For this reason it is the best feeding-ground in the fall and spring for the great flocks of migrating water-fowl.

In order to explore this region, we first tried a folding canvas boat, which we secured at Burns, twenty-five miles north of the lake. This had the advantage of being light, but it was too small to carry the equipment we needed for a week's trip on the lake. We needed a double-ended flat-bottom boat that could be used in shallow places to make way through the tules. We made three different trips out through various sections of this vast lake district. We were out for nine days during the last trip.

We had to undergo many hardships in exploring this region to find the different bird colonies. We spent much of our time searching to see if we could not find a few American Egrets, for great colonies of these birds formerly inhabited this region.

After almost two months in this country, we discovered many large colonies of breeding birds. The most important, perhaps, was a colony of 500 White-faced Glossy Ibis, which were nesting in the same locality with the Black-crowned Night Herons. We found several colonies of Great Blue Herons and Farallone Cormorants nesting together. Besides some small colonies, we found one locality where about two thousand Western Grebe were breeding. The most populous colony we found was one composed of thousands of White Pelicans and Ring-billed and California Gulls nesting near together. In addition, we found a colony of Eared Grebe nesting with a colony of Western Grebe; also several small col-

onies of Forster's and Black Tern, one colony of Caspian Terns that were nesting with the California Gulls; Pied-billed Grebe and American Coots were common all through the lake region. At one place we found a large number of Coots living about the same locality.

In addition to Black-necked Stilts, Avocets and other wading birds, great



WHITE-FACED GLOSSY IBIS

One of a colony of five hundred on Lake Malheur Reservation; the only colony known in Oregon.
Photographed by Finley and Bohlman

numbers of Ducks and Geese lived all through this region. The southeastern portion of the lake is a great breeding-ground for Canada Geese. We saw many old birds with flocks of young almost grown. In one place I counted 540 old and young geese. Further on I counted 360 more. Still further on I counted flocks that numbered 570 Geese. This made almost 1,500 Canada Geese in one part of the lake that were seen within an hour. There were likely thousands more all through the tules.

Until a few years ago, the White Egret (*Herodias egretta*) was quite abundant about Malheur lake, but after a month's search we saw but two of these birds and found no sign of their nests. In 1898, a plume hunter told me he made hundreds of dollars in a day and a half, shooting White Herons on Lake Malheur. He has often made as high as \$400 and \$500 a day killing these birds. This shows that White Egrets were very plentiful on the lake. The slaughter was continued, till now the birds are practically extinct.



THE WESTERN GREBE

The greatest sufferer in the West at the hands of the market hunter. The snow-white breasts of these birds are used for capes, muffs and other purposes. Photographed by Finley and Bohlman

This hunter is the type of the professional plumer who is responsible for the great decrease in numbers of our plumaged birds. He began hunting in the early seventies; he has hunted Herons and other plumed birds in Louisiana, Florida, Mexico, the West Indies, and up and down the Pacific Coast. In 1886-1889 he shot on Tulare Lake in California, often making \$400 and \$500 a day killing Herons. Whenever he could not make more than \$120 by nine o'clock in the morning, he said he would seek better hunting grounds. He not only followed the trade of the plume hunter in the summer, but for years he was

hired by parties in Spokane, Portland, Seattle and San Francisco to shoot Ducks and other wild fowl. For years he shot Grebe through southern Oregon and California. He was one who helped to exterminate the great colonies that formerly lived on the northern borders of Tulé Lake. He has hunted both the Upper and Lower Klamath, Tulé Lake, Goose Lake, Clear Lake, Warner's Lake, Tulare Lake, Harney Lake and Lake Malheur.

The plume hunters have been at work continually through southern Oregon and northern California, killing thousands of Grebes and other birds. It is a difficult matter to stop shooting in such a vast area that is so profitable to the plume hunter, but we expect to succeed. There are at present six indictments against plume hunters filed in the District Attorney's office at Burns, for shooting Grebes on Malheur Lake. These indictments cite the killing of 400 Grebes by one hunter and 1,000 by a second hunter. These two plume hunters heard in advance that indictments were to be made and escaped to California, so they have never been brought to trial. At the time the indictments were made, Sheriff Richardson, of Harney county, seized a number of sacks containing 800 Grebes skins at the express office at Burns. These skins, as well as many others, were sent from Lawen, a small town near Malheur Lake. They were addressed to New York City.

The most important step in the protection of water-fowl in the West was recently taken by President Roosevelt, when on August 8, of this year, he set aside Lower Klamath Lake to be known as the Klamath Lake Reservation, and on August 18, Harney Lake and Lake Malheur were set aside as Lake Malheur Reservation. Although these lakes have for years been the richest field for plume and market hunters, the field is not yet entirely depleted, nor do the plume hunters want to abandon these lakes as long as any plumage birds are left.

I do not believe there is a more populous water-bird district in the United States than through southern Oregon. The President has given us the best reserves that can be secured. This breeding ground is undoubtedly the nursery of the great flocks of Ducks and Geese that invade sections of California. If it were not for these reserves, I believe the time would come in sections of California when the sportsmen would have little or no Duck shooting. The reservations should appeal widely to sportsmen.

To show how little observance has been given to the game laws in southeastern Oregon, it has been the custom for parties to go down to Malheur Lake in the fall when Swan, Snow Geese and other birds are migrating, and kill these birds merely for the feathers, which are sold at so much per pound.

Ducks and Geese were so common formerly that a party of hunters could easily secure a wagon-load in a short time. It was not an uncommon thing for a party of hunters to go out to the Lake to shoot and return with as many Ducks as the wagon could hold. The hunters generally stopped on the corner of some street and passers-by could help themselves till the supply was exhausted.

Water fowl are still very plentiful through this region, yet I have questioned many of the older residents and others and find that there is little comparison between the number of birds now and those of a few years ago. Ducks, Geese and Swan were there in such numbers, a few years ago, that it seems a few years could make but little difference. Yet I am told that on account of the unrestricted shooting there has been a constant noticeable decrease year by year. The wholesale decrease has been within the last five or six years.

In the past, there has been no warden to protect the great region about Malheur and Harney Lakes, but, in order to see that the game laws are obeyed, through State Game Warden Stevenson we have secured the appointment of two wardens, one at Burns, Mr. George Sizemore, and one at Narrows, Mr. Charles Fitzgerald.

The attention of the National Association is called to the condition of some of the larger animals in this state. On account of insufficient protection, some of these are rapidly disappearing and are likely to become extinct in this state unless needed protection is secured. There are a few bands of elk left in the state, and a law should be enacted giving these animals complete protection for five or ten years.

Mountain sheep are now very scarce in Oregon. They have never been found except in the eastern part of the state. As we have had no law for the protection of these animals, they have disappeared rapidly.

Antelope were formerly quite common through southeastern Oregon, especially in Harney and Malheur counties. Dr. L. E. Hibbard, of Burns, estimates that there are now not more than twenty-five hundred antelope in Harney county. The antelope has marvelous vitality, but its home is on the open plain. It has absolutely no retreat from the modern long-range rifle. It is readily hunted to extinction. As population advances, this animal must go unless some radical steps are taken. The following is a good example of how the antelope have disappeared.

Five years ago, in Harney Valley a bunch of forty-five antelope lived on the rye-grass flats southeast of Burns. They ranged from there to the east side of the valley. They could be seen almost any day during the summer of 1903. By 1905 the herd had decreased to about twenty-five. Now all these antelope have disappeared. Years ago plenty of antelope ranged north of Burns. These have disappeared. This is an example of what has been and will be repeated as population increases, until the last antelope is gone. Immediate protection is needed for those remaining.

STATE AUDUBON REPORTS

The brief reports submitted by the several state societies show in the main a growing activity in the special line of work which most of them follow, i. e., the education of children that they may have a more intimate knowledge of the live bird in its natural surroundings. The love of birds once established in the mind and heart of a child is a guarantee that thereafter bird protection will occupy a large place in the child's thoughts, and is also a warranty of the growth and strength of the Audubon movement for years to come.—WILLIAM DUTCHER.

Arizona.—An Audubon Society was organized last April. The following were chosen officers of the Society: Mr. Herbert Brown, President; Rev. W. W. Breckenridge, Vice-president; Mrs. Harriet B. Thornber, secretary; Mrs. Florence McCallum, treasurer. The Society adjourned during the hot summer months, but is ready now to take up work for the coming year. Requests to become members are constantly being made by people of education and ability. Arizona is a rich field for Audubon work.—MRS. J. J. THORNER, *Secretary*.

California.—During the past year, much of our energy and most of our money has been used in educational work. About ten thousand Leaflets, reports, warning-cards and signs have been distributed, including large editions of Leaflets No. 5, a new Dove Leaflet and a digest of the bird laws, a great many copies of which were placed with game-wardens, principals and teachers in the public schools, and interested workers in all parts of the state. It is pleasing to be able to report that the Society has been able to supply every request for educational literature and warning-signs made during the year.

Fifteen illustrated lectures on the economic value of the wild birds were delivered by the secretary. Professor Stebbins, of the State Normal School at Chico, and Dr. Emily G. Hunt, of Pasadena, have also greatly aided our work by illustrated lectures before local organizations and schools; and Prof. L. H. Miller, of the State Normal School at Los Angeles, has given a number of interesting and instructive bird talks in aid of our work.

An effort to check the traffic in bird skins and bird eggs, carried on in violation of the state law, has brought about very much better conditions with regard to the "collecting" evil; and, with continued coöperation of the State Fish Commission, which issues permits under the law for scientific collecting, the abuses of bird and egg collecting, more or less in evidence in almost every state, will soon be reduced here to the minimum.

The Society continues to combat the practice of killing Doves in the nesting season, and by the circulation of a large amount of educational literature fully covering the details of this species of cruelty, and the aid of humane sportsmen

in sympathy with our cause, has brought about a strong public sentiment against the practice, which must eventually result in a much later closed season for the Mourning Dove than that at present provided by the state law.

The Audubon Society of California finds itself strong and well equipped in the middle of its third year. It never before had so many good friends, generous supporters and active, capable workers, willing and ready to give gratuitous service for the saving of the birds. More than fifty new members, including a large proportion of life-members, have been added during the past three months, while a strong and active local Society was organized at Riverside and has become affiliated with the state organization. Six junior societies were also organized during the year.

The local Society at Pasadena, the oldest organization affiliated with the State Society, has made a record worthy of special mention, having added about fifty active workers to its membership rolls and distributed several thousand Leaflets and warning-signs on its own account. This Society holds monthly meetings for interchange of ideas and bird study, and is exceptionally active in the pursuit and prosecution of violators of the bird laws in its field.—W. SCOTT WAX, *Secretary*.

Connecticut.—The Audubon Society feels much gratified that it was largely instrumental in having Mr. Wilbur Smith appointed game warden for Fairfield county; he gives his entire time to the work; he is a very valuable member of our executive committee.

Since last spring, a column has been conducted in the Bridgeport 'Evening Telegram,' Saturday edition, entirely in the interest of bird protection; it is conducted by a lady member of our executive committee and is published in connection with the 'Kind Deed' club of the paper. The Society sends this weekly copy of the paper to every local secretary of the Society in the state, and uses the column to further the interests of the Society. This year, we have had a 'school secretary,' Miss F. H. Hurd, of South Norwalk, who works in the schools and stirs up interest among the children. We have sent out our usual traveling libraries, portfolios, and bird-charts, and have distributed literature. We have added 645 associate members, 5 sustaining members, 5 teachers, 24 regular members, 206 junior members, a total of 885. We shall probably have more names reported before the annual meeting, October 31. The Executive Committee has held eight meetings during the year, with an average attendance of eight members.

On Bird and Arbor Day, a party of four members of the Executive Committee visited eleven schools in Fairfield, and one of the party spoke to the children in thirteen rooms about protecting the birds. The children seemed much interested, and contributed their share in reciting or singing songs about birds and flowers.—HELEN W. GLOVER, *Secretary*.

Delaware.—The work of the Delaware Audubon Society continues along the same lines, that is, getting new members. Apart from this, there is nothing of special mention.—FLORENCE BAYARD HILLES, *Secretary*.

District of Columbia.—The work of our Society has progressed steadily during the past year. The events of greatest interest being Mr. Kearton's lecture and our usual field meetings. The latter have been well attended, a total of ninety persons going on the five walks and 110 different kinds of birds being seen. On the second walk, a colony of Night Herons was visited, and between fifteen and twenty nests were found. Most of these contained young, who filled the woods with their hissing. In their anxiety, the parent birds came so near that their red eyes and the long filamentous plumes could be easily distinguished.

On another day, the Blue Grosbeak, one of the rare birds of this region, was noticed, and on the last walk the great event of the day was the sight of the Pileated Woodpecker, which has been seen in the vicinity of Washington only four times in twenty years.

The five walks were productive of a number of rare birds; in addition to those already mentioned, were Henslow Sparrow, Summer Tanager, Golden-winged, Hooded, Kentucky and Worm-eating Warblers, Pine Siskin and Hairy Woodpecker.

Each year, our Society gives a number of free lectures, hoping to arouse the intelligent interest of the public. At our annual meeting in January, we had Mr. Edward Avis, of New York, whose imitation of bird notes by whistling, and on the violin, was much enjoyed, especially by the young people.

All of our meetings have been well attended, but the treat of the year was the lecture by Mr. Kearton, of Surrey, England, illustrated by a remarkable series of moving pictures of birds (the first ever taken). These pictures were shown for the first time in America at the Executive Mansion, on the invitation of President Roosevelt. Mr. Kearton's next lecture was given under the auspices of the National Geographic Society, from which 500 persons were turned away; so that our Society considered itself very fortunate to secure Mr. Kearton, and at once engaged the Columbia theater. To defray the unusually heavy expense, we charged an admission fee of twenty-five cents, and by five o'clock in the afternoon of the day on which the seats were put on sale not one of the 1,300 seats was to be had.

The lecture, with its marvelous pictures, was thoroughly enjoyed by all who had the privilege of hearing it. Mr. Kearton received an ovation, and was so much pleased with the appreciation shown that he declared his intention of returning to the United States next year to make a tour of the country. If he does, we can only hope that all members of the various Audubon Societies may have the privilege of hearing him.—HELEN P. CHILDS, *Secretary*.

Florida.—While the work of the Florida Audubon Society goes on with appreciable and increasing interest, it meets with many discouragements in non-enforcement of laws, illegal shooting, trapping of birds, plume-hunting, the shooting of many birds which are ignorantly supposed to be destroying crops, and the slaughter of birds by the so-called 'sportsman' tourist.

The membership list has increased, while the subscribers have responded as in former years, which, owing to the recent financial depression, was most gratifying.

Warning-notices have been posted at all points where flagrant depredations occur. In this we have, as always, the help of the Southern Express Company. Printed cards giving a summary of the laws of Florida regarding birds, their nests and eggs, were placed in hotels, post offices and stores. Leaflets, circulars, reports and bulletins from the Agricultural Bureau at Washington have been widely circulated. The 'Times-Union' in its weekly edition publishes a sheet devoted to birds, especially as to their value to the farmer and fruit-grower; it has excited interest and led to the forming of new auxiliaries. Mrs. Bradt, in the 'Sunshine Society' column, never forgets the birds.

'Bird-Day' has been observed with appropriate exercises in many towns, both under the auspices of women's clubs and schools; notably at Ormond and Fairfield. At the commencement exercises of the Robert Hungerford Industrial and Normal School (colored), in Eatonville, prizes were given for bird essays. A prize for "protecting nests and eggs" was given to Mrs Kirk Monroe's Boys' Club, 'The Rangers.' One year's subscription to BIRD-LORE was given as a prize at Sanford.

At the General Federation of Women's Clubs held in Boston in June, Mrs. Kirk Munroe, as secretary of the Florida Federation, had on exhibition and for distribution Leaflets and reports of the Florida Audubon Society.

There have been but three publications this year, but one of our Leaflets was adapted and reprinted by a sister Society. The most important of those printed was the 'Check-list of Florida Birds'; it was modeled after the check-list of the Massachusetts Society, and arranged by Mr. Williams and Mr. Bowdish, of the National Association. Seventy-five Audubon charts are in circulation. It is a matter of regret that no chart has been published of the 'birds of the South,' which would be of great benefit to Florida, Louisiana, Texas and all states below the Carolinas.

The most recent reservation on the east coast, known as 'Mosquito Inlet,' adds another refuge and breeding- as well as breathing-place for Florida birds. Our thanks are due to President Roosevelt, our first Honorary vice-president, and to our honored vice-president, Mr. George N. Chamberlin, of Daytona, Florida, for their efforts and interest in securing this reservation.

White Egrets, Blue Herons and Limpkins have been seen in new nesting-places. Quails have increased, as have many other birds. We have appeals from many quarters that Robins be put on the protected list. The importance

and need of a Game Commissioner is felt at every turn, although our sheriffs have given more help than formerly.

We should give public expression of our sorrow at the death of Hon. George W. Wilson, editor of the 'Times-Union.' Mr Wilson was a vice-president of our Society from its foundation, and his generous help and sympathy will never be forgotten.

In the death of Ex-President Grover Cleveland, we meet with the loss of an Honorary Vice-president. Mr. Cleveland approved the efforts of our Society, and was a defender of the rights of the lower order of creation, as well as of the higher. While he was a sportsman, he was so in its best sense; for he believed that no cruelty or wanton sacrifice of life should be allowed or practiced.

I but voice the feeling of all the officers of the Florida Audubon Society, as well as of all bird lovers, when I make a plea for some action to be taken by the National Association, in concert with the State Audubon Societies, to place restrictions on the shooting from 'motor-boats,' of birds and animals. Their destruction or slaughter is not perhaps realized; but in Florida, with its rivers, lakes, and beautifully wooded creeks, where birds have their haunts, is offered every inducement for a motor-boat, and shooting from it soon becomes a reckless amusement; for, as the boat does not stop in its course, the dead or dying creatures are left on the water or shore. We have reports of quantities of wild Ducks shot in this way, which have been found on the water or on the banks.

The picture is before you—the cruelty is apparent! Cannot some action be taken to prohibit it?—MRS. KINGSMILL MARRS, *Chairman of Executive Committee.*

Illinois.—The annual meeting was held in May, and was most interesting because of the address of Dr. Lynds Jones of Oberlin College, Ohio, on 'Sea Birds of the Washington Bird Reservation.' At this meeting a resolution was passed, asking that the subject of bird protection be considered at the meetings on conservation of the nation's resources to be held in Washington. Doubtless, the Illinois Audubon Society was not the only one that felt that the birds deserved a place as a 'resource' of the nation, and those engaged in forestry work should recognize, more than they do, their important part in the preservation of the forests. The Society has sent out over seventeen thousand Leaflets this last year, the largest number in its history. It has also sent the little paper 'By-the-Wayside' to 100 teachers in the state.

The Illinois Arbor- and Bird-Day Annual of this year was a credit to the state, much of its interest being due to the work of two members of the Audubon Society, Professors F. L. Charles and Thomas L. Hankinson.

The Audubon Department in 'School News,' under the charge of Mrs. E. S. Adams, has been continued, and has brought large results in the increased interest of teachers and scholars. Owing also to the fact that in the Illinois 'course of study' teachers were advised to write to the Audubon Society for

material about birds, the secretary was almost overwhelmed in the spring with letters from teachers and pupils all over the state, and from other states as well. As there is an unusual demand for Leaflets at the date of writing (October), the interest bids fair to increase steadily this year.

A sketch of Audubon's life, by Mr. E. B. Clark, was published in School News, which this Society expects to issue as a Leaflet.

We have for the first time published a short report to be sent to members, covering the first decade of our work.

We have added to our plant two new traveling libraries (known as the 'Nancy Lawrence Memorial' and the 'Directors' libraries), and five sets of pictures, 100 in each set, with descriptions of the birds under each picture. These sets are boxed, and form a loan collection for schools; they have proved a popular addition to our working force, and they—the lecture and the libraries—have been in demand almost constantly.

We have heard from about eighty of our 102 counties, but are doing no better in the matter of local secretaries.

We wish to claim a share with Florida in the honor due Mr. George N. Chamberlin, of Illinois and Florida, in the setting apart of the Mosquito Inlet reservation, as Mr. Chamberlin is one of our vice-presidents.

We have expended during the year \$303.09, and have received \$404.09. As we started the year with a balance of \$196.93, our balance in May was \$297.93.
—MARY DRUMMOND, *Secretary*.

Indiana.—It used to be said, "When you are in Rome, do as the Romans do"; a later bit of advice is "When you are in Rome, tell the Romans how you do it." In reporting for this year, I shall be guided by the latter.

The routine Audubon work has gone on about as usual this year, but we did hit our 'high-water mark' in our annual meeting and that I propose to tell about. For years we have held our annual meetings at various cities out in the state, always having the coöperation of the school authorities, the local Audubon people and usually the club women. The meeting consists of four sessions and the programs are so planned that we have two evening meetings, popular in character, for the general public. In the early part of Friday morning bird talks are given in every school in the city—not a child in school but hears about the birds. Later in the morning is held a meeting for Audubon workers for the reading and discussion of special papers, plans, etc. In the afternoon there is a meeting designed to be especially helpful to teachers and the older pupils of the schools, and in the evening the popular meeting.

The meeting this year was held at Fort Wayne, the largest city we have yet attempted, because of the difficulty of getting enough attractive speakers to give bird talks in all the schools Friday morning. Fort Wayne has a strong local Society and promised help on the school bird talks and they supplied more than half of the speakers for their seventeen schools.

The Thursday evening meeting was held in the High School Auditorium with addresses of welcome, for the city, by Judge Taylor; for the schools, by the school superintendent and for the local Society by its president. Mrs. Gene Stratton-Porter, the author of 'The Song of Cardinal' and 'What I Have Done with the Birds' gave an address on 'The Experiences of a Bird Woman' telling of her work in getting photographs to illustrate her books. The music for this as well as Friday evening was furnished by the Girls' Orchestra from the State School.

Friday morning, from 9 till 10 o'clock, was 'Bird Day' in the Fort Wayne schools. Just a few of the schools had to wait for their "talks" until early afternoon but at some time in the day every child in the Fort Wayne schools heard about the birds.

About 10.30, there was a conference of Audubon workers in the Museum Room of the Carnegie Library, the regular meeting place of the local Society. A history of the local Society was given by its president, a paper on bird anatomy by C. A. Stockridge, the economic value of birds by W. W. Woollen. Professor Mead, principal of the school in the Institute for Feeble Minded Youth, read a paper telling 'What Birds Have Done for Defective Children,' which presented a phase of Audubon work not familiar to the ordinary bird student. For this reason Professor Mead's paper was of unusual interest and if I had not started out to tell the Romans how we do our annual meetings, I certainly should tell of the marvelous results obtained with these children through bird- and nature-study.

Friday afternoon the schools were dismissed earlier than usual to give teachers and older pupils an opportunity to hear Dr. Dennis. Dr. Dennis is very popular not only with his old students at Earlham College but with Indiana people in general and the hall was filled to listen to his talk on 'How to Attract Birds to Our Home and School Grounds.'

This year, for the first time, we had the pleasure and inspiration of the presence of one of the officers of the National Association, the secretary, Mr. T. Gilbert Pearson, who not only filled his assigned place on the program, but helped out in the morning bird talks in the schools. As usual at all our meetings, the interest increased with every session and at the evening session of Friday the High School Auditorium was crowded to hear Mr. Pearson tell of the 'Work of the Audubon Societies of America.' The audience was deeply interested in the lecture and more than delighted with the stereopticon illustrations. MISS FLORENCE A. HOWE, *Secretary*.

Iowa.—The following is a partial report of work done in 1908:

During the spring months, ten-minute talks were given the pupils of different grades in the Waterloo Public Schools, aggregating 1,100 children, thus arousing new interest in the study and protection of birds and resulting in the securing of the names of several adult and nearly one hundred junior members for the

Audubon Society. Over one thousand colored plates and educational Leaflets were given the teachers, with the suggestion that the pupils be allowed to copy the colored pictures and write bird stories; also that the children be encouraged to make note of the date of the arrival of the different varieties of birds, during the spring migration. In many instances these suggestions were followed, with the result that in the annual exhibit of school work, the bird booklets were of especial interest.

In June, two public meetings were held, one in each library, the interesting programs being given by the pupils of the different schools and the elder members of the Society.

Through the efforts of our Secretary, Prof. John Cameron, of Kansas City, was secured by the local Chautauqua Association for the presentation of three illustrated lectures on the subjects of Nature and Birds. These lectures were practically interesting and profitable.—MRS. W. B. SMALL, *President*.

Kansas.—It is most singular that Kansas, one of the greatest agricultural states of the Union, with such a vast number of progressive citizens, should be among the last to recognize bird life as one of its chief assets. This territory is a portion of the great inland highway for bird migration to the northward in the spring and southward in the autumn, and immense hosts stop here for the summer sojourn.

With some misgivings, an effort was made to combine the protests of bird-lovers and sportsmen against the appalling destruction of birds into a recognizable force. Happily, all doubts were dissipated by a unanimity that justified preliminary action in August to effect a regular Society for the protection of birds. On October 2, 1908, a permanent organization was founded, with a charter membership of forty-five, which may run up to sixty or seventy by the time we are ready to print our by-laws. A charter from the state of Kansas is now in process of completion.

Among the things we hope to accomplish is the amendment of the present state bird laws to conform to the established standards elsewhere, and to provide for the absolute protection of all harmless wild birds and animals.

That there are several species of birds that are destructive to horticultural interests there is no doubt; but we hope to put a stop to the indiscriminate slaughter that is going on simply because a few species are harmful. Recently a man stated to me that he had used 2,400 gun shells during a single season, and I have been told of another that used 6,000 shells, directed against all classes of birds.

Indifference to the crying evil of egg-stealing, skin-stuffing, summer shooting (especially by the youth) and other vandalism against bird life is much more difficult to contend with than the instances quoted above. This state possesses a full quota of bird-lovers, and a strong effort will be made to enlist their influence to make it possible for the feathered friends of the agriculturalist,

the horticulturist and the dweller in the city to come, rear their young and go without molestation.

We have outlined a great work, and the spread of a healthy idea of complete protection to all harmless birds and animals is in the hands of leading representatives of the educational, professional and business life of the state. We therefore expect in the near future to take an advanced position among bird-protecting states of the Union.

To all similar efforts we send greeting.—RICHARD H. SULLIVAN, *President*.

Louisiana.—The Audubon Society of Louisiana chronicles a year of great success. In the early part of the year we prepared two comprehensive measures to be introduced in our State Legislature. One thoroughly covered the protection of game birds, the other provided the creation of a State Commission for the protection of birds, game and fish, with self-sustaining warden service.

With the aid of the National Association of Audubon Societies (which was freely accorded us) these measures were successfully presented to the legislature and subsequently became laws, and from now on, state control of this asset supersedes voluntary associated effort of individuals.

In addition to obtaining these laws we successfully withstood an organized effort on the part of the millinery trade of the whole country to amend our present "non-game" bird law, in order to permit the selling of bird plumage. Possibly this was the most important event in the whole history of bird protection.

Our reservations on the coast continue to give a good account of themselves. Thanks to the warden service maintained by the National Association, our bird-breeding islands to the eastward of the mouth of the Mississippi river gave to the almost depopulated waters of the Gulf upwards of sixty-two thousand Gulls and Terns; while to the westward of the river, a like number were probably raised on islands over which very little warden service obtains for want of funds.

From now on the Audubon Society can drop the undesirable phase of litigation to enforce the bird and game laws and enter the more congenial and true one of effort along educational lines in the public schools.

In conclusion, we desire to call the attention of all Audubon Societies to the misnomers under which our efforts have been carried on. We refer to the designations of 'game' and 'non-game' birds. In our opinion this is highly objectionable and should be superseded by the more comprehensive terms of 'useful' birds, comprising all the insectivorous and some vegetivorous birds. 'Game' birds comprising the wild sea and river Ducks, Geese, etc., and the 'obnoxious' birds, such as Cooper's Hawk, Cowbird, *Passer Domesticus* and others.

Such a nomenclature would bring the bird question right into the domain of the utilitarian and would vitally strengthen the plea for bird preservation.—FRANK M. MILLER, *President*.

Maine.—The interest in bird protection in Maine continues to spread. So far as known, the large colonies of birds on the coast have been unmolested, and no unfavorable breeding conditions have come to notice.

Common Terns returned to the Outer Green Island in considerable numbers, and a few dozens bred successfully. —ARTHUR H. NORTON, *Secretary*.

Maryland.—There is but little new to report this year. The game laws were slightly modified at the last meeting of the legislature.

An encouraging feature, however, has been the desire on the part of individuals in different counties of the state to form local societies in their respective communities. Good laws will be the inevitable fruit of a growth in knowledge of bird life; so educational work, the most important work of all, will continue in Maryland. —MINNA D. STARR, *Secretary*.

Massachusetts.—It is pleasant to be able to report another successful year with a gain of 321 members. Our membership is now 6,870, which includes 2,174 juniors and 123 local secretaries.

Our work has been done along the usual lines. A large number of educational and other Leaflets, warning notices in English and Italian, and copies of the law have been freely distributed. Our four traveling libraries have been used continuously and there has been a good demand for our bird charts, plates and calendars. Our three traveling lectures have been used in a number of schools.

We are publishing another calendar this fall, printed in Japan, with six new plates of birds, uniform in style and artistic merit with our calendars for the past three years.

Much interest was taken in legislative matters last winter, and a special effort was made to help the passage of a bill to prohibit spring shooting. Several hundred circular letters were sent out announcing the hearing on the bill and giving the reasons why it should be passed. This bill was referred to the next General Court. Several other bills called for special interest in our part. Among them one to abolish our excellent Fish and Game Commission on the ground of economy, which did not get beyond its first hearing; one to create the office of State Ornithologist, connected with the State Board of Agriculture, which passed; and a hunters' license bill, which also passed, to go into effect January 1, 1909.

Constant war was waged on milliners and hairdressers who tried to use aigrettes, etc. All that were discovered were reported to the state officers, the Fish and Game Commission, and their cases were promptly attended to. The Commission sent out a deputy who did splendid work in a number of cities in the state, bringing the offenders into court when he found the feathers of Herons, Terns, etc., in their stock. They also had postals printed stating the law in regard to the use, or possession of, feathers from birds protected by our state laws, which were sent out by our Society as well as by the Commission.

Besides the regular monthly meetings of the Board of Directors, a conference

of the New England Audubon Societies was held, which was not very well attended, and a successful course of four lectures was given, with Rev. Herbert K. Job, Mr. Ernest Harold Baynes, Mr. Henry Oldys and Mr. William Lyman Underwood as lecturers.—JESSIE E. KIMBALL, *Secretary*.

Michigan.—The Michigan Audubon Society has made a special fight for the preservation of game-birds by protecting the nesting-grounds. The State Game Warden has done better work than his predecessor against whom our Society waged a war. Some of the local deputies have been efficient but generally speaking there has been little improvement in deputies. The Audubonists have joined with the Michigan Association in asking for improvements in game conditions. Mr. Charles Pierce, the game warden, has attended the meetings of the Association and agreed to aid in bringing about the abolishment of spring shooting. This we hope to accomplish in the legislature during the coming winter. The Women's Clubs of the state have started a crusade against bird millinery. They have also helped in bringing Audubon work before the schools. The Audubon Society became a member of the Michigan State Humane Association and has spread the work in this way, that is, by coöperating with the various humane societies.

Our Society has given a number of prizes to schools and clubs. Five local Audubon Societies have been organized during the year and some of them have been quite active. Last winter one man made \$1,800 killing English Sparrows in Detroit. In the country districts many Goldfinches, Chickadees and Tree Sparrows were destroyed and a bounty was collected on them as English Sparrows. For this reason we are asking that the bounty law on English Sparrows be repealed. Detroit suffered greatly by the destruction of trees from insects during the spring and summer. This the citizens agree was caused through the killing of the Sparrows. The Audubon Society will insist on experts destroying the Sparrows if it is considered necessary to have them removed. We find that the bounty on Sparrows encourages bad habits in boys.

Mr. Henry Oldys spoke on government work in preserving the birds, before an audience of 800 in Detroit. The secretary has given fifteen lectures, with stereopticon views in various parts of the state. Prof. W. B. Barrows has been helping by correcting the erroneous summary of the state laws published by the Secretary of State. The forces for the protection of animal and birds were never before united in Michigan as they are now and generally improved conditions are looked for.—JEFFERSON BUTLER, *Secretary*.

Mississippi.—For three years after the passage of the A. O. U. Model Law in 1904, Mississippi did nothing to follow up her advantage. But the appointment of Special Agent H. H. Kopman marked the beginning of a new era.

During the summer of 1907, Mr. Kopman gave talks in many parts of the state, in connection with the Farmers' Institutes. He carefully prepared, during

this time, a list of available material; and a charter membership of 239 was enrolled before the widely advertised Audubon Society organization meeting took place. The week of the State Fair was selected as a favorable time for organization; and through the National Association an exhibit was made at the Fair for more than a week. Specimens for this exhibit were also borrowed from the Museum of Tulane University, New Orleans. A register was kept of the visitors to the exhibit, and reply cards soliciting membership were sent to them. This, however, met with little success; and most of the good accomplished was probably through the literature distributed, setting forth the purposes of the proposed organization.

Without going farther into the details of organization than to say that it took place on November 9, in Jackson, we will state briefly the work done.

Reply cards have been sent to selected persons in all parts of the state, and by this and other means the membership has been increased to 302. Circulars for posting have been sent to about seven hundred and fifty Mississippi post-offices, by permission of the Department; this work will be continued. Much publicity has been given the work from its inception by articles of varying nature in the Jackson daily papers, which have been in steady sympathy with us, especially the 'Daily News,' whose city editor is chairman of our Committee on Publicity. And of very great importance is the work now being undertaken of sending out 10,000 circulars to state and county fairs during this fall, setting forth the advantages to the farmer of the Audubon work, of publishing in every paper in the state a regular publicity communication, and of combining in the most intimate way possible publicity and popular education, by means of a series of illustrated lectures by Special Agent Kopman.

A series of articles by Mr. Kopman in the 'Farmers' Union Advocate', in which he replied to attacks made on the proposed warden system, and on the work of the Society in general, did good, it is hoped; they certainly reached many farmers all over the state, and probably assisted in clearing us of suspicion of 'graft.'

Careful and persistent work was done by Mr. Kopman in Jackson, in preventing violation of the laws forbidding the sale of game. One affidavit was made and conviction secured, and we think the local trade was almost stopped. President Hemingway is memorializing the thirteen circuit judges to charge their grand juries in regard to the game laws.

No legislation was secured; but the bill providing for a state warden and license system was favorably reported in House and Senate, and would certainly have passed if adjournment had not prevented. Governor Noel is committed to the cause and would gladly have signed the bill if it had come to him.

The educational outlook is good. Mr. Kopman made addresses to teachers' associations in five counties, and has talked in the schools of a number of important towns and cities. The State Superintendent of Education has given us hearty support and our work has been endorsed in the Mississippi 'School Journal,'

the official organ of State Education. Local chapters have been founded here and there, with a membership of over one hundred school children at Ellisville, and local secretaries at the State University, and the two largest colleges report excellent prospects for the winter. The secretary read at the annual meeting of the State Teachers' Association a paper which was well received, and he has already been engaged to conduct a course in bird study at one of the summer Normal Schools during the summer of 1909.—ANDREW ALLISON, *Secretary*.

Nebraska.—While our Society has had no unusual growth in the year past, we do notice a continued increase in interest in bird life and study. We held the annual field-day with the Nebraska Ornithologists' Union at Childs Point, several miles south of Omaha, it being one of the best regions for observation in the state. At our request the Nebraska Ornithologists' Union have published a field Check-list of common eastern, common western, rare and accidental species reported in the state, some four hundred in all. Bird guides have been put into the traveling libraries sent over the state by the Library Commission. The increase of nature study in our schools results in the delight possible from an acquaintance with birds, and makes them more and more appreciated. The Public Library in this city will exhibit a collection of our common birds in spring and fall plumage, together with their nests. Had we means to print and circulate more literature, we believe that the children in the state might be incited to join heartily in a movement to give wild birds more and better protection.—JOHN R. TOWNE, *President*.

New Hampshire.—The work of the New Hampshire Audubon Society during the past year has been chiefly educative. We have continued to circulate literature, and have concentrated our attention on schools in the remoter rural districts, supplying them with bird charts, pictures and books.

In order to increase the circulation of the book 'Useful Birds and Their Protection,' by Edward Howe Forbush, we have sent printed circulars describing and recommending the book to the 300 librarians of New Hampshire.

Arrangements have been made to insert in the leading newspaper of the state Mr. Forbush's semi-monthly articles on bird protection and the work of the Audubon Societies. At our annual meeting Mr. Forbush gave his lecture, 'What Birds Do for Man, and What Man Should Do for Birds.'

Mr. Abbott H. Thayer has written an 'Appeal to Sportsmen' in behalf of the Ruffed Grouse, urging a five-year close period, and the Society has taken measures to have this appeal published in the leading papers of the state.

Through the solicitation of the Society, the lecture 'The Ministry of Birds,' by Dr. W. R. Lord, was included in the course given by the Manchester Institute of Arts and Sciences.

The good news has come to us from the Fish and Game Commissioners that there is already evidence that the law passed at the last session of the legis-

lature, giving a five-year close season on Wood Duck and Upland Plover, has resulted in an increase of numbers of those species.—MRS. F. W. BATCHELDER, *Secretary*.

New Jersey.—It is very evident that there is no falling off in *bird interest* in this state, if we can judge by the number of persons who are learning to identify them, and by the books advertised and sold. Interest in all outdoor sports and in nature study has increased, and bird study comes in for its share. The majority of persons, however, feel that they can pursue this study by themselves, and the need of joining a Society or helping in the prosecution of offenders does not present itself to them.

The chief work done by the New Jersey Society during the past year has been the sending out of several thousand circular letters on the occasion of the spring-shooting bill which was introduced into the Senate last spring. A bill was also introduced relating to the selling of game-birds within the state of New Jersey. An effort was made to introduce to the teachers of the public schools the Audubon Leaflets on bird-boxes, with illustrated examples which would appeal to children and enable them to construct these little boxes and bird-houses for themselves. Although no reply came from the hundred or more school principals to whom these Leaflets were furnished, it is hoped that an impulse was given in the right direction, and probably a similar attempt will be made during the coming winter.

JULIA S. SCRIBNER, *Secretary*.

New Jersey.—The La Rue Holmes Nature Lovers' League, organized two years ago, at Summit, New Jersey, for the further protection of the flora and fauna of this country, is a progressive movement accomplishing much in the formation of human character through its precepts of self-sacrifice, as well as in the protection of nature's riches in the locality where it chiefly obtains.

Composed of thirty chapters, chiefly in schools, both public and private, it is usually accepted as a united school movement, all pupils being members, the entire membership numbering about three thousand.

As a means of increasing sentiment in behalf of protection of forests, native plants and animal life, ninety lectures have recently been given, twenty-five of which were by Mr. Beecher S. Bowdish, of the Audubon Society. About 20,000 pictures of birds and 10,500 Leaflets have been distributed during the last ten months in this interest. Of the hundreds of essays written by pupils, based on information received from such sources chiefly, eighty-three of those submitted to the League Essay Committee have been printed in various periodicals.

About two hundred and sixty petitions were sent out through the chapters of League chapters and 500 circular letters of the Audubon Society distributed when the New Jersey Legislature was in session, in behalf of bills securing absolute protection to the game birds of the state.

Over five hundred folders of the American Forestry Association were distributed

tributed during the last session of Congress, among the clergy and other prominent members of Society, in behalf of the Appalachian and White Mountain bill, for the preservation of our forests.

In the interests of industry and nature study, packages of garden seeds were distributed among all pupils of six of the League Chapters.

A present League interest is the completion of the fund to be appropriated to the purchase of a bird refuge on the New Jersey coast. But a while ago, thousands of Gull wings swept in untold beauty on errands of usefulness over New Jersey's shores; today, through woman's demand for their plumage, a few hundreds linger around the old nesting-place, and these only through the vigilance of the Audubon Society, whose wardens act as guards. The La Rue Holmes Nature League is seeking the means necessary to make this breeding-ground the possession of the Gulls, and other shore birds, for all the future.—GEORGIANA K. HOLMES, *General Secretary*.

New York.—Governor Hughes' suggestion that the entire bird and game laws should be revised resulted in the adoption of the Cobb-Mills Bills. Mr. Dutcher urged several amendments to these bills, and was successful in securing "no open season at any time for the Wood Duck;" also a month's additional protection on Long Island for shore-birds. Other legislative action favorable to birds' protection was the increase of the non-resident and alien hunters' license to twenty dollars; resident license, one dollar.

The amendments recommended by Mr. Dutcher which failed to pass were: To prevent possession of wild-fowl sixty days after beginning of the close season; to prohibit killing of Brant from January 1, to May 1; to secure protection for the Snowy Owl, the useful Hawks, and the Crow Blackbird; to prohibit the sale of the plumage of wild birds wheresoever killed. A vigorous effort will be made made to secure the passage of these amendments the coming session of the Legislature.

At the annual meeting of the Society, which was held on March 19, 1908, Prof. Henry Fairfield Osborn was elected President.

The new certificate, in colors, is now ready for distribution. The present membership is 9,403.

The routine of the work of the New York Society has been the same as in the past, and until the movement takes firmer hold upon the public conscience and larger contributions are received, and more clerical aid secured, no great change is to be expected.

In Buffalo, a Society is being organized to increase the interest in Audubon work in that city. This will be an important factor in the development of bird protection in the western portion of the state.

A few days ago, an enthusiastic local secretary moved to Binghamton and reported great interest of the work there. Last spring she wrote that "interest is on the increase," and now she asks for "double the amount of literature sent last year,

as there is great demand for it." This is only typical of the growth of the work, were the Society able to be more liberal in supplying the demands created by these past twelve years of effort. Another local secretary writes: "I find the people in the country and small towns are just waiting to have this work broached to them, to go into it heart and soul." Thus, the ever-present problem of how to increase the income of the Society is now more than ever urgent. The Society is now doing a tithe of the work which might be done were more funds at its command.—EMMA H. LOCKWOOD, *Secretary*.

North Carolina.—In certain respects, the work in North Carolina for the past year has been on a decidedly larger scale than theretofore. The Secretary of the Society, assisted by Miss Mary T. Moore, the School Secretary, has given a large number of lectures and bird talks throughout the state, principally to gatherings of teachers and farmers. Five thousand copies of the game laws, besides many thousands of leaflets and cloth posters, have been distributed, and numbers of articles for the public press have been prepared and sent out.

During the year seventy-nine game wardens were employed, a larger number than any previous year. As a result of their activities, the Society brought 274 prosecutions in the State Courts for violations of the bird and game protective laws. In 245 of these cases the defendants were convicted and fined. The majority of these convictions were for infringements of laws protecting game birds or animals, but twenty-five cases were for killing Robins, and nineteen cases were for killing non-game birds such as Mockingbirds, Nighthawks, Cuckoos, Herons and Bluebirds.

During the year we purchased an additional launch, 'The Dovekie,' which has since been doing patrol work in Currituck Sound. Our legislature was called in special session during the month of January, and several local game laws of a restrictive nature were passed. Some of these bills were drafted by the secretary of the Audubon Society.

In connection with the State Geological Survey, we are preparing to publish an illustrative work on the birds of North Carolina, at a contemplated expenditure of about five thousand dollars. This work will be sent gratis to over two thousand Public School Libraries in the state.

We received \$8,776.12 from the state, our total income amounting to \$13,115.33; and our expenditures were \$13,275.26, leaving an overdraft of \$159.93.—T. GILBERT PEARSON, *Secretary*.

North Dakota.—The work of the North Dakota Audubon Society for the year ending October 30, 1908, has been for the most part along the line of creating public sentiment in favor of the protection of bird life. A series of well-attended free lectures was given during the winter months under the auspices of the Society. In December, Mr. Enos A. Mills, lecturer for the United States Forestry Bureau, spoke to three large audiences of the value of trees and birds.

creating much favorable comment. The subjects treated later in the series were 'Uncommon Birds of Stump Lake,' 'Faunal Areas of North Dakota,' 'Familiar Bird Families and How to Know Them' and 'How to Attract the Birds to Our Houses.' As the Hawks and Owls arrived in the spring of 1908, carefully prepared articles on local species with special reference to their value as pest destroyers were published in local papers. During the summer of 1908, a local Society was organized, through the efforts of Mrs. William Falger, at Devil's Lake.

At the annual meeting held October 30, 1907, Dr. R. T. Young was made president and Mrs. A. G. Leonard, secretary and treasurer.—MRS. A. G. LEONARD, *Secretary*.

Ohio.—The past year has been marked by increased enthusiasm among the members, and consequently greater personal effort on the part of various individuals to keep the work of the Society before the public, as well as to refresh their own lives by 'listening to stars and to birds, to babes and to sages with open heart.'

Apropos of babes: We have begun to organize bird clubs in the various public schools and in even some of the exclusive private institutions, and, whereas we started out with the modest hope of interesting only a few children in the several districts, the result more than justified our efforts. At present there are over six hundred and twenty-five children the proud possessors of an Audubon button, many provided with guides, and we believe that, if we can keep in close touch with these children for four or five years, the protection and appreciation of birds will be well assured.

The movement is still in the experimental stage. Last year's series of illustrated lectures drew such large attendances that Mr. Hodges, Librarian of the Public Library of Cincinnati, offered us the free use of all the Branch Libraries. We therefore hope to properly organize and systematize the work for the coming year.

The work of the Society in prosecuting milliners for the sale of birds and aigrettes attracted a great deal of attention. And while, for the most part, we dislike the aggressive method, we found that the 'notoriety' did much to awaken public sentiment, even if it did not decrease the sale of aigrettes. At present, Mr. Speaks, the Chief Warden of Columbus, Ohio, has agreed to defend the case *vs.* the appeal of one of the milliners, in his attempt to test the law. If the law can be found wanting, we shall need to remodel it; otherwise there ought to be more attempts made to enforce it.

The Program Committee provided a series of interesting speakers for our regular meetings, and these were much enjoyed. Usually, the topic of the afternoon lead into general discussion and debate, which was not the least enjoyable part of the program.

There has been much correspondence with persons throughout the state about organizing branch societies, and many leaflets have been distributed.

The Bounty Bill for Hawks and Owls was defeated, thanks to the prompt efforts put forth to crush it.

More than the usual number of requests for speakers from our Society have been called for by other organizations, and these have done much to stimulate in others a keener appreciation of the beauties of nature. Mr. Wm. Hubbell Fisher, the President of our Society, lead them all in point of number, having given of his valuable time to lecture or talk on trees and birds before a half dozen different assemblages.

Last, but by no means least, our field meetings have been a grand success. Every week saw parties of bird-lovers, armed with cameras, guide-books and glasses, start out on these delightful excursions. Whatever effort was required to make it possible for some of us to attend was more than repaid by the number of species noted, and by the sweet serenity of spring.

It was, for some of us, our first formal introduction to nature, and we hope sincerely to be able to make her further acquaintance. The success of these meetings was largely due to the patience and ability to impart knowledge on the part of our two guides—Mrs. Hermine Hansen, as botanist and zoölogist, and Mr. Wm. Cramer, as ornithologist. That the coming year may be as full of endeavor and accomplishment, is our earnest wish.—M. KATHERINE RATTER-MANN, *Secretary*.

Oklahoma.—Outside of the distribution of bird literature, there was little accomplished by our State Society, except the work before the state legislature. We are in need of more and better organization throughout our new state.—ALMA CARSON, *Secretary*.

Oregon.—Our Society has been active during the past year in distributing educational leaflets to farmers, fruit-growers, teachers and ladies of fashion. We expect to pursue the same course during the coming winter.

The boys of the Manual Training School, under the patronage of our Society, made a success with their bird-nesting-box exhibit. We have made arrangements with the director of the school to follow this still further in the winter's work. The second of the series of bird leaflets, written by Mr. Finley, and published under the authority of the University of Oregon, was issued during the year; it deals with the economic value of the birds common about our state. This, with the first leaflet, we have used to much advantage in our educational work.

At a meeting of the Oregon Fish and Game Association, last spring, it was proposed to submit a bill to the next legislature, extending the spring shooting of Ducks up to March 1. The Audubon Society passed resolutions against this step, and will make a determined fight if such a bill is introduced. We have secured the support of the best class of sportsmen against extending the season; public sentiment seems opposed to the spring shooting of wild fowl.

An active campaign for life members in this Society was undertaken during the spring. Twelve were secured at the payment of twenty-five dollars each. Four hundred dollars was subscribed by our Society for Messrs. Bohlman and Finley to make a trip into Southeastern Oregon in quest of bird knowledge.

The report of these gentlemen upon this trip resulted in the establishment of Klamath and Malheur Lake Reservations, thus placing Oregon as one of the best-equipped states in the Union for the protection of wild birds.

A year ago, Three Arch Rocks Reservation was set aside by President Roosevelt. The sea-birds have been well protected under Warden Phelps, of the last-mentioned reservation.

Klamath and Malheur Lakes are the greatest breeding and feeding grounds on the Pacific Coast for various kinds of water-fowl, notably the Grebe. Plans are under way to have these birds guarded and protected. Klamath and Malheur Reservations are large,—they require active wardens fearless in the work; to get these, money is necessary. Reservations without wardens are of little effect. This problem is urgently before us.—EMMA J. WELTY, *Corresponding Secretary*.

Pennsylvania.—The Society had a most excellent start given to its enthusiasm for bird study in the beginning of the winter by the meeting of the American Ornithologists' Union, in Philadelphia, in December 1907. The Audubon members who availed themselves of the open session of the Union heard some most interesting papers, and had opportunities of meeting a number of well-known ornithologists.

The Society was also fortunate in having a lecture given by Mr. Kearton of England, which was most interesting.

A large number of leaflets have been distributed during the year, and able assistance in this work has been given by different Children's societies, such as 'Mercy Bands,' etc.

The traveling libraries of the Society have had new books added to them,—'Gray Lady' and 'The Sport of Bird Study,'—both very popular with the children, and the libraries (which are under Miss Hilda Justice's management) have been sent to different applicants through the state, as usual.

The regular course of lectures at the Academy of Natural Sciences on 'Our Common Birds' by Mr. Witmer Stone, president of the Pennsylvania Society, had a very large attendance this year.

A most interesting feature during the past year has been the gradual increase of requests for 'something to read about birds,' as well as the demand for 'colored pictures' on all occasions.

The secretary finds that a list of good bird books with a brief outline of the contents of each book, the cost and where they may be obtained, is a welcome addition to the leaflets to many of the country applicants for bird information.

Mr. Forbush's valuable book, 'Useful Birds and Their Protection', has given great help and satisfaction to out-of-town members.

In closing, the secretary begs to thank all the state Societies which have sent their leaflets or local reports to her. It is most helpful to have this interchange of ideas, and the reports of work accomplished have been most suggestive and encouraging to start new lines of work in Pennsylvania.—ELIZABETH WILSON FISHER, *Secretary*.

Rhode Island.—The Audubon Society of Rhode Island reports definite progress this year, notwithstanding the resignation of its efficient secretary, Mrs. Henry T. Grant.

During the year four local secretaries have been appointed, making a total of thirty-one. The entire number of members is 1,988. Two new classes of members have been added: 'Sustaining Members,' with annual fee of five dollars, and 'Junior Members' (under sixteen years) with a fee of ten cents in one payment. Juniors at sixteen are expected to join one of the classes of adult members. These changes are designed to give a more adequate, regular income and a compact working membership.

An effort has been started to introduce bird study into the city schools with favorable results in Providence and East Providence. Six thousand leaflets have been distributed and a number of bird charts. The Society has published a special bulletin of valuable suggestions for bird-study indoors and outdoors at different seasons, entitled 'One Way to Study the Birds,' by Mrs. H. E. Walter. A report has also been issued including full lists of officers and active members with addresses.

One thousand leaflets about feather wearing have been distributed to the Federation of Women's Clubs, and 200 signatures obtained of those willing to give up the use of feathers.

Rhode Island was favored in having Mr. Edward H. Forbush here through the winter. He worked up an interest in bird legislation which resulted in four bills for bird protection being introduced into the Senate. The one for the protection of shore birds from January 1 to August 1 passed both houses and became a law. An appropriation of \$1,000 was added to the \$300 now available for the work of the bird commissioners of the state.

Both Mr. Forbush and Mr. Frank M. Chapman have given interesting free lectures under the auspices of the Society during the last winter.

Seven traveling bird libraries have been in constant use in rural districts, and a traveling lecture, with excellent stereopticon illustrations, has been enjoyed several times in Rhode Island and in Illinois and Michigan.—ALICE W. WILCOX, *Secretary*.

Texas.—For twelve months, ending October 5, all the activities the Texas secretary could lend, all the time possible to spare from newspaper engagements, have been earnestly dedicated to Audubon work, with fruitful results in arousing interest in the preservation of birds and in promoting the organization of branch

societies, 85 per cent of such societies having been formed in the universities, academies, and public schools.

In the strenuous efforts made during the current year, I desire to express grateful appreciation for encouragement afforded the Texas Audubon Society by Governor Tom Campbell, Attorney-General R. V. Davidson, Turner E. Hubby, Hon. E. W. Kirkpatrick, of McKinney, President of the Texas Farmers Congress; Dr. R. B. Cousins, of Austin; State Superintendent of Public Instruction; Col. R. T. Milner, President of the Agricultural and Mechanical College; Dr. H. H. Harrington, former President of the same, now in charge of the state experiment stations; Prof. Wesley Peacock of San Antonio, President of the Peacock Military School; Hon. John A. Porter of Paris, Texas, General Manager of the Paris Transit Company; Hon. George H. Hogan of Ennis, Miss Kate Friend, President of the Waco Federation of Women's Clubs; Dr. H. P. Attwater, Industrial Agent of the Southern Pacific; Hon. W. W. Seley, President of the Waco Business Men's Club; Hon. Homer D. Wade, Secretary of the Stamford Business Men's Club; to the entire press of the state, and to ministers and educators in general.

In lecturing with and without the lantern and slides, covering a territory in Texas equal to three or four of the smaller eastern states, the lectures have been invariably received with kindness and consideration and have been accorded all the attention and assistance we needed. In every case, the Audubon lecturers have been permitted to use large halls, auditoriums and opera-houses, and have been afforded plenty of light, and have had the assistance of intelligent and helpful ladies and gentlemen who lent their skill, energy and high social standing in making the lectures successful; in more than one case, young ladies handling the stereopticon.

As long as the railways were permitted to do so, they gave free transportation, and, that courtesy having been cut off by legislative enactment, the railway officials continue by every means in their power to aid the Audubon work.

The volume of bird life in Texas is on the increase, except Doves, Water-fowl, and Prairie Chickens. Ruthless Dove slaughter broke out the latter part of last August, and has not yet ceased, in spite of vigorous efforts to suppress it. With inadequate revenue to support it, the state warden system has not been fully able to cope with the situation, but has done a great deal toward the suppression of the inveterate butchery directed especially against Doves.

Gun clubs at Houston and Beaumont have been active in protecting both water-fowl and game generally in the regions contiguous to the Gulf of Mexico, while in the northwestern Texas counties land owners, railway men, and state officials have done much for the protection of antelopes, deer, Wild Turkeys and Prairie Chickens.

In all the work accomplished, the Texas Audubon Society proved the most prominent agency in the state in encouraging the preservation of wild life, in fields, forest, and on the plains.

The Texas Audubon Society has gained the respect and admiration of the entire law-abiding population of Texas, and we hope and believe that the next legislature will provide revenues sufficient for the support of a fully effective warden system. With the limited means at their disposal, Col. R. H. Wood, the state warden, and Capt. R. W. Lorence, chief deputy warden, have accomplished wonders, and have demonstrated that with adequate means they would be able to convert Texas into a vast and princely bird and game preserve, the greatest preserve on the planet.—M. B. DAVIS, *Secretary*.

Vermont.—In February, 1908, the Audubon Society of Vermont was reorganized with the following officers: President, Prof. J. W. Votey, University of Vermont, Burlington; secretary, Carlton D. Howe, Essex Junction; treasurer Miss Emma E. Drew, Burlington; first vice-president, Mrs. E. B. Davenport, Brattleboro; second vice-president, Miss Cora I. Tarbox, Essex Junction.

Since reorganization, the secretary has given forty-four bird talks and lectures, thirty-eight before school children in as many different schools, two before Teachers' Conventions, one before a meeting of School Superintendents, one before a Bird Club, and one each before an Epworth League and a Missionary Institute.

Over three thousand Audubon Leaflets have been distributed, chiefly to teachers, in all parts of the state.

The biennial session of the legislature convenes this month. An effort will be made to strengthen the existing bird law by placing certain unprotected birds upon the protected list.

An increased interest in bird study and an increase of sentiment toward bird protection is noticeable among the general public, especially among educators and school children.

There has been an increase in membership in both departments. The Society in Burlington now numbers 500 members.—CARLTON D. HOWE, *Secretary*.

Washington.—I find that the conditions of this state are rapidly changing for better bird protection, and the laws of this state are fairly well observed. I also find that game wardens throughout the principal counties of this state are doing everything in their power to help enforce the laws for the protection of both game- and song-birds.

I have made arrangements with the public schools in Seattle, and will endeavor to do the same in other cities of this state, for the building of nesting-boxes.

The pamphlets you sent me some time ago are being distributed to the several manual-training departments of the public schools throughout this state. I have in this city kindred organizations that are constantly furnishing aid along these lines.

While our state organization is not so strong as I should like to have it, I

am pleased to say it has done wonders. Since this organization has been formed, I find that the children, in many instances, are well posted on bird life, habits, etc. Our president, Mr. W. Leon Dawson, is constantly working in the field, both in research and educational lines, and I, as secretary of this Association, look forward to a prosperous year for 1909.—H. RIEF, *Secretary*.

Wisconsin.—The Audubon work in this state, for which the Wisconsin Audubon Society stands responsible, is progressing well. Through the general interest and assistance of the state newspapers, its purpose and labors are becoming widely known, and the number of its loyal friends and co-workers is increasing steadily.

During the past year, hundreds of Audubon Leaflets have been distributed among the public libraries and among educators and others in a position to aid.

Other helpful literature has also been widely circulated. The circulation of 'By-the-Wayside,' the official organ of the Wisconsin and Illinois Societies, so ably edited by Mr. Thomas R. Maybe, secretary of the Children's Department, has also been slightly increased.

The Society's libraries of bird books and stereopticon lectures have been in frequent demand. The State Game Warden's office, with which the Society is acting in full accord, has succeeded in bringing to justice a considerable number of persons guilty of wantonly destroying bird life.

Correspondence has been conducted with Audubon Societies and unattached workers in other states, and the interest in the protection of bird and animal life thus assisted.

In the State Historical Museum, at Madison, a bulletin-board, giving information of the Audubon work, has been erected, and by this means the Society's work is brought to the notice of thousands of visitors.

Teachers' institutes and other gatherings have also been addressed by various members.

The annual meetings of the Society was held at Madison, on the evening of May 29.

Dr. R. H. Dennison was elected president, and Mr. Charles E. Brown secretary and treasurer for the ensuing year. Mrs. Joseph Zastraw and Mrs. R. G. Thwaites were chosen vice-presidents. Mr. Thomas R. Maybe will continue in charge of the Children's Department.—CHARLES E. BROWN, *Secretary*.

LIST OF MEMBERS OF THE NATIONAL ASSOCIATION OF AUDUBON SOCIETIES

BENEFACTOR

*Albert Willcox 1906

LIFE MEMBERS

Bancroft, William P.	1906	Hunnewell, H. S.	1905
Barnes, Miss Cora F.	1907	Huntington, Archer M.	1905
Beebe, Mrs. J. Arthur.	1907	Jackson, Mrs. James.	1908
Bingham, Miss Harriet.	1907	Kidder, Nathaniel T.	1905
Bowman, Miss Sarah R.	1905	Kilmer, Willis Sharpe.	1907
Brewster, William.	1905	Lawrence, Samuel C.	1905
Bridge, Mrs. Edmund.	1907	McConnell, Mrs. S. D.	1908
Brooks, A. L.	1906	McGraw, Mrs. Thos. S.	1908
Brooks, Everett W.	1907	Marshall, Louis.	1906
Brooks, S.	1907	Morton, Miss Mary.	1906
Brooks, Mrs. Shepard.	1906	North Carolina Audubon Society.	1905
Browning, J. Hull.	1905	Osborne, Mrs. Eliza W.	1906
Carr, Gen. Julien S.	1907	Palmer, Wm. J.	1906
Chapman, Clarence E.	1908	Pearson, Prof. T. Gilbert.	1905
Childs, John Lewis.	1905	Phillips, Mrs. J. C.	1905
Clyde, W. P.	1905	Phillips, John C.	1905
Coolidge, T. Jefferson 3rd.	1907	Pickman, Mrs. Dudley L.	1907
Crosby, Maunsell S.	1905	Pierrepont, Anna J.	1905
Earle, Carlos Y. Poitevent.	1905	Pierrepont, John J.	1905
Earle, Miss Eleanor Poitevent.	1905	Pinchot, Mrs. James W.	1906
Eastman, Geo.	1906	Potts, Thos.	1905
Edgar, Daniel.	1908	Reed, Mrs. Wm. Howell.	1905
Emmons, Mrs. R. W., 2nd.	1908	Sage, Mrs. Russell.	1905
Fay, Flora Ward.	1905	Satterlee, Mrs. Herbert L.	1906
Foot, Mr. James D.	1907	Shattuck, Mrs. F. C.	1906
*Frothingham, Howard P.	1905	Stokes, Miss Caroline Phelps.	1908
Gallatin, F., Jr.	1908	Thompson, Mrs. Frederick F.	1908
Gazzam, Mrs. Antoinette E.	1908	Tufts, Leonard.	1907
Gifford, Mrs. Robert L.	1908	Van Name, Willard G.	1905
Havemeyer, Mrs. H. O. Jr.	1907	Vaux, George, Jr.	1905
Hemenway, Mrs. Augustus.	1905	Webster, F. G.	1905
Hoffman, Samuel V.	1907	Wharton, Wm. P.	1907
Hostetter, D. Herbert.	1907	Woodward, Mrs. Geo.	1908

*Deceased

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Abbott Clinton G. ...	\$5 00	Brought forw'd. ...	\$75 00	Brought forw'd. ...	\$140 00
Abbott, Gordon ...	5 00	Allen County Audu-		Archbold, John D. ...	5 00
Abbott, Mrs. L. L. ...	5 00	bon Society (Ind.).	5 00	Armin, Albertina von ...	5 00
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Adams, Emily B. ...	10 00	Alms, Eleanor C. ...	5 00	Austin, Francis B. ...	5 00
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Alexander, H. B. ...	5 00	Andrews, Mrs. H. E. ...	5 00	Bahr, Dr. P. H. ...	5 00
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Allen, Charles A. ...	5 00	Anthony, Mrs. S. R. ...	10 00	Baird, Miss Lucy H. ...	15 00
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Baker, L. D., Jr. . . 5 00	Borland, Wm. G. . . 5 00	Cameron, E. S. . . . 5 00
Baker, Mrs. Wm. E. . 5 00	Bowdish, B. S. . . . 5 00	Campbell, Helen G. . 5 00
Ball, Mrs. H. A. . . 5 00	Bowditch, Miss C. . 10 00	Campbell, Mrs. T. B. . 5 00
Balph, Mrs. J. M. . . 5 00	Bowditch, James H. . 5 00	Carey, Mrs. S. W. . . 5 00
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Banks, Miss M. B. . . 5 00	Boyle, Edward J. . . 5 00	Carnegie, F. M. . . . 5 00
Barhydt, Miss C. . . 30 00	Bradford, Mrs. G. G. . 5 00	Carpenter, C. L. . . . 5 00
Barhydt, Mrs. P. H. . 5 00	Bradley, Miss A. A. . 5 00	Carson, Robert D. . . 5 00
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Barnes, Herbert S. . . 5 00	Bradley, Edward R. . 5 00	Carter, S. T., Jr. . . 5 00
Barnes, J. Sanford, Jr. 5 00	Bradley, Miss Leslie . 5 00	Cary, Wm. Avery. . . 5 00
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Barron, George D. . . 5 00	Bragdon, J. W. . . . 5 00	Cash. 5 00
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Batten George. . . . 5 00	Breck, Dr. Edward. . . 5 00	Chamberlain, L. T. . . 5 00
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Beech, Mrs. H. . . . 5 00	Bristol, John I. D. . . 5 00	Chapman, F. M. . . . 18 00
Behr, Edward A. . . . 5 00	Brooks, F. M. 5 00	Chapman, H. E. . . . 5 00
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Robertson, Dr. A. R. 5 00	Sewall, J. B..... 5 00	Stone, Charles A.... 5 00
Robertson, Mrs. 5 00	Shannon, Thomas.. 2 00	Stone, Miss E. J.... 5 00
Fanny P..... 10 00	Sharpe, Miss E. D.. 55 00	Stone, Herbert F.... 5 00
Robey, Master A. A. 5 00	Shattuck, Geo. C... 5 00	Stratton, A. L..... 5 00
Robinson, Miss A. H. 5 00	Shattuck, Miss G. A. 5 00	Stratton, Chas. E.... 5 00
Robinson, Arthur... 5 00	Shaw, Mrs. C. W.. 5 00	Strong Richard.... 5 00
Robinson, Mrs. G. H. 5 00	(In memoriam of	Strong, Selah B.... 5 00
Robinson, J. A.... 5 00	Sherburne M.	Sugden, Arthur W.. 5 00
Robotham, C..... 5 00	Shaw..... 5 00	Swasey, E. R..... 5 00
Rockefeller, John D., Jr. 5 00	Shaw, Francis..... 5 00	Swezey, Mrs. I. T... 5 00
Rockefeller, Mrs. J. D., Jr. 5 00	Shaw, Q. A., Jr.... 5 00	Taber, Mrs. S. R.... 5 00
Rodman, Alfred... 5 00	Shaw, Miss G. H... 5 00	Taber, S. R..... 5 00
Rodman, Miss E.... 5 00	Shaw, Mrs. R. G.... 15 00	Taft, Cyrus A.... 5 00
Rogers, Geo. J.... 5 00	Sheldon, Mrs. H. K. 10 00	Tarbell, Miss K. A.. 5 00
Rogers, Mrs. L. S... 5 00	Shepard, C. Sidney. 10 00	Taylor, B. F..... 5 00
Roper, Rev. Y. Chas. 5 00	Shepard, Emily B... 5 00	Thaw, Benj..... 5 00
Roth, J. E..... 5 00	Shiras, George, 3rd. 5 00	Thayer, Ezra R.... 25 00
Rowlev, John..... 5 00	Shortall, Mrs. J. L.. 5 00	Thayer, Mrs. G. A. Jr. 5 00
Rugg, A. P..... 5 00	Simmons, B. F..... 5 00	Thayer, John E.... 200 00
Rushmore, Mrs. T.L. 5 00	Simmons, Geo. O... 5 00	Thayer, Mrs. J. E... 5 00
Russ, Mr. Edward... 5 00	Sitgreaves, Miss M. J. 5 00	Thayer, J. E., Jr... 5 00
Ryman, J. J..... 5 00	Skeel, Mrs. R. Jr... 10 00	Thayer, Mrs. N.... 5 00
Rynearson, Edward. 5 00	Skidmore, Samuel T. 5 00	Thebaud, Paul G.... 5 00
Sage, John H..... 5 00	Slocum, Wm. H.... 5 00	Thomas, Miss B. H.. 5 00
Sage, Mrs. S. M.... 5 00	Smedley, W. L.... 5 00	Thomas, Mrs. L.... 5 00
Saltonstall, J. L... 15 00	Smith, Miss A. W... 5 00	Thomas, Mrs. T.... 5 00
Sanford, A. F..... 5 00	Smith, Mrs. A. J.... 5 00	Thordnike, Albert.. 5 00
Sargent, Mrs. J. W.. 5 00	Smith, Byron L.... 5 00	Thorne, Samuel.... 10 00
Saunders, Miss M... 11 00	Smith, Miss C. L... 5 00	Tingley, S. H..... 5 00
Saunders, W. E.... 5 00	Smith, Edward C... 5 00	Tinkham, Julian R.. 10 00
Sauter, Fred..... 5 00	Smith, Miss E. C... 5 00	Titus, E., Jr..... 5 00
Savings of Carola and her Brothers.... 25 00	Smith, Mrs. J. N.... 5 00	Tolcott, James.... 5 00
Sayre Rockwell... 5 00	Smith, Laura I.... 5 00	Torrey, Miss J. M... 5 00
Scarborough, J. V. B. 5 00	Smith, R. D..... 5 00	Trainer, Chas. W... 5 00
Schott, Chas. M., Jr. 5 00	Smith, Theo. H.... 5 00	Trine, Ralph Waldo. 5 00
	Smith, Wilbur F.... 5 00	Tuckeran, Alfred.. 5 00
	Smith, Mrs. E. L... 5 00	Turner, Mrs. W. J.. 5 00
	Smyth, Ellison A... 5 00	

Carried forw'd, \$5,548 00

Carried forw'd, \$5,950 00

Carried forw'd, \$6,465 50

ANNUAL MEMBERS AND CONTRIBUTORS, continued

Brought forw'd, \$6,465 50	Brought forw'd, \$6,760 50	Brought forw'd, \$7,438 50
Tuttle, Albert H. 5 00	Webster, Edwin S. 5 00	Wilbour, Miss T. 5 00
Tweedy, Edgar. 5 00	Webster, L. F. 5 00	Wilcox, T. F. 55 00
Twombly, John F. 5 00	Weeks, Andrew G. 5 00	Wildman, A. D. 5 00
Tyson, Mrs. G. 10 00	Weeks, W. B. P. 5 00	Willever, J. C. 10 00
Van Huyck, J. M. 5 00	Wehrhane, Chas. 5 00	Williams, A. H. 5 00
Van Name, W. G. 100 00	Weld, Mrs. C. M. 5 00	Williams, Blair S. 5 00
Van Orden, Miss	Weld, Rev. Geo. F. 5 00	Williams, Mrs. I. T. 5 00
Mary L. 5 00	Weld, Stephen M. 5 00	Williams, Miss M. E. 5 00
Vermilye, Mrs. W.	Wells, Oliver J. 5 00	Willis, Mrs. A. 5 00
Gerard. 5 00	West, Charles C. 5 00	Wills, Chas. T. 5 00
Vietor, Edward W. 5 00	Westfeldt, G. R. 5 00	Wilson, Miss A. E. 5 00
Wadsworth, C. S. 15 00	Weston, Helen. 6 00	Wilson, Mr. C. H. 5 00
Wadsworth, Mrs. W.	Wetmore, Edmund 5 00	Wilson, C. W. 5 00
Austin. 10 00	Wharton, Mrs. E. R. 5 00	Wing, Asa S. 5 00
Wadsworth, Richard	Wharton, Wm. P. 500 00	Winterbotham, J. 5 00
C. W. (In memor-	Wheeler, J. D. 5 00	Winson, Mrs. A. 5 00
iam). 10 00	Wheeler, S. H. 5 00	Winzer, Emil J. 5 00
Waldo, Allan S. 5 00	Wheelwright, Miss	Wolff, L. S. Mrs. 5 00
Waldo, Chas. S. 5 00	M. C. 5 00	Wood, Walter. 5 00
Walker, Master O. 5 00	Whippen, C. I. 1 00	Woods, C. M. 5 00
Wallace, Mrs. A. H. 5 00	Whipple, Mrs. H. B. 5 00	Woodcock, John. 5 00
Walsh, Frank J. 5 00	Whitcover, H. W. 6 00	Woods, Edward F. 5 00
Walters, Frank. 5 00	White, Miss A. J. 5 00	Woodman, Miss M. 5 00
Ward, Marcus L. 5 00	White, Chas. T. 5 00	Woodward, Lemuel
Ware, Horace E. 5 00	White, Miss E. C. 5 00	Fox, M. D. 5 00
Warner, Mrs. G. M. 5 00	White, Horace. 5 00	Woolman, E. W. 5 00
Warner, Dr. H. S. 5 00	White, Miss H. H. 5 00	Wray, Charles P. 5 00
Warren, B. W. 5 00	White, Dr. J. C. 5 00	Wright, H. W. 5 00
Warren, Miss C. 25 00	White, Mrs. L. E. 5 00	Wright, M. F. 5 00
Warren, Mrs. E. W. 5 00	Whiting, Miss G. 15 00	Wright, Mrs. M. O. 5 00
Warren, Samuel D. 5 00	Whiting, Mrs. K. B. 5 00	Wright, Mrs. W. 5 00
Watson, J. H. 5 00	Whitney, Miss Anne. 5 00	Wyatt, W. S. 5 00
Watson, Miss J. S. 5 00	Whitney, Milton B. 5 00	Young, T. S. 5 00
Wead, Miss C. E. 5 00	Whiton, S. G. 5 00	Zabriskie, Mrs. A. C. 5 00
Webb, G. B. M. D. 5 00	Whittaker, Wm. 5 00	Zollikoffer, Mrs.
Webster, Mrs. E. S. 5 00	Widmann, Otto. 5 00	O. F. 5 00
Carried forw'd, \$6,760 50	Carried forw'd, \$7,438 50	Total \$7,663 50

MEMBERSHIP IN THE NATIONAL ASSOCIATION

\$5.00 paid annually constitutes a person a Sustaining Member.

\$100.00 paid at one time constitutes a Life Membership.

\$1,000.00 paid constitutes a person a Patron.

\$5,000.00 paid constitutes a person a Founder.

\$25,000.00 paid constitutes a person a Benefactor.

FORM OF BEQUEST

I do hereby give and bequeath to THE NATIONAL ASSOCIATION OF AUDUBON SOCIETIES FOR THE PROTECTION OF WILD BIRDS AND ANIMALS, Incorporated, of the city of New York.

The Report of the Treasurer of the National Association of Audubon Societies

BALANCE SHEET

Exhibit "A"

October 20, 1908

ASSETS

Cash in Farmers Loan and Trust Company.....		\$7,199 74
Furniture and Fixtures.....		137 30
Audubon Boats (four).....		2,908 46
<i>Investments—</i>		
United States Mortgage and Trust Company Bonds.....	\$3,000 00	
Bonds and Mortgages on Manhattan Real Estate.....	316,000 00	
		319,000 00
<i>Loan Account—</i> South Carolina Society.....	200 00	
Louisiana Society.....	45 00	
		245 00
<i>Deficit</i> for the year ended October 20, 1908, per Exhibit "B".....	508 83	
<i>Add—</i> Deficit existing at October 20, 1907.....	9,008 56	
		9,517 39
Total.....		\$339,007 89

LIABILITIES

Endowment Fund—

Balance to credit of Fund October 20, 1907.....	\$336,927 00	
<i>Add—</i> Received from Life Members during the year, 13 at \$100 each.....	1,300 00	
Estate of James W. Bartlett.....	\$500	
Less State Tax.....	25 475 00	
		\$338,702 00

Bradley Fund—

Total contributed to date.....	1,900 40	
<i>Less</i> amount invested, Taxes, repairs, etc.....	1,594 51	
		305 89
Total....		\$339,007 89

INCOME AND EXPENSE ACCOUNT FOR YEAR ENDING OCTOBER 20, 1908

Exhibit "B"

INCOME—

Members' Dues.....	\$4,871 00	
Contributions.....	2,786 50	
Interest from Investments.....	16,097 19	
Educational Leaflets—Sales.....	600 82	
		\$24,355 51

EXPENSES—

Warden Service and Reservations—

Salaries.....	\$2,769 00	
Exploration.....	377 02	
Launch Expenses.....	313 56	
		3,459 58
Expenses carried forward.....	\$3,459 58	24,355 51

INCOME AND EXPENSE ACCOUNT FOR YEAR ENDING OCTOBER 20, 1908, continued

INCOME, brought forward.....		\$24,355 51
EXPENSES, brought forward.....		\$3,459 58

Legislation—

Traveling.....	\$186 20	
Expenses.....	150 00	
		336 20

Educational Effort—

T. G. Pearson, salary and expenses.....	\$2,303 77	
E. H. Forbush, salary and expenses.....	1,999 89	
H. H. Kopman, salary and expenses.....	1,368 34	
Miss Moore, salary.....	360 00	
M. B. Davis, salary.....	325 00	
W. L. Finley, salary and expenses.....	1,048 10	
Curran & Mead, Press Information.....	1,800 00	
Plates and outlines.....	916 65	
Slides and Drawings.....	383 24	
Electros and half-tones.....	213 35	
BIRD-LORE to members.....	987 76	
Extra pages in BIRD-LORE.....	629 94	
Printing.....	645 00	
Newspaper clippings.....	57 81	
Educational Leaflets.....	740 65	
Traveling.....	186 19	
		13,965 69

Southern Office—

Expenses ...		291 96
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Bradley Fund—

Interest paid on balance.....		15 00
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State Audubon Societies—

Texas.....	\$300 18	
New York.....	106 15	
Missouri.....	7 93	
Louisiana.....	6 93	
California.....	50 00	
Wisconsin.....	15 00	
Michigan.....	25 00	
New Jersey.....	53 35	
South Carolina.....	34 20	
Washington.....	30	
Massachusetts.....	39 75	
Mississippi.....	393 44	
Prince Edward Island.....	3 80	
		1,036 03

General Expenses—

Office salaries.....	\$ 2,773 00	
Postage.....	768 54	
Telegraph and telephone.....	92 34	
Office and storeroom rent.....	740 94	
Stenographic work.....	211 49	
Legal services.....	25 00	
Envelopes and supplies.....	274 87	
Express and cartage.....	67 46	
Commissions.....	103 75	
Miscellaneous.....	793 39	
		5,759 88

Total expenses.....		24,864 34
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Balance—Deficit, see Exhibit "A".....		\$508 83
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LAWRENCE K. GIMSON, CERTIFIED PUBLIC ACCOUNTANT,
82 Wall Street

NEW YORK, October 24, 1908

DOCTORS J. A. ALLEN, AND G. B. GRINNELL,
Auditing Committee,
National Association of Audubon Societies,
141 Broadway, New York City.

Dear Sirs:—In accordance with your instructions, I have made an examination of the books and accounts of the National Association of Audubon Societies for the year ending October 20, 1908, and present herewith the following Exhibits:—

EXHIBIT "A"—BALANCE SHEET, OCTOBER 20, 1908.

EXHIBIT "B"—INCOME AND EXPENSE ACCOUNT FOR YEAR ENDED OCTOBER 20, 1908.

All disbursements have been verified with properly approved receipted vouchers and paid cheques; investment securities with safe Deposit Company have also been examined and found in order.

Yours very truly,

LAWRENCE K. GIMSON,
Certified Public Accountant.
NEW YORK, October 27, 1908

WM. DUTCHER, President,
141 Broadway, City.

Dear Sir:—We have examined the report submitted by Lawrence K. Gimson, Certified Public Accountant, of the accounts of the National Association of Audubon Societies, for the year ending October 20, 1908, which report shows balance sheet October 20, 1908, and income and expense account for the year ending on the same day,

Vouchers and paid checks have been examined in connection with the disbursements, also securities in the Safe Deposit Company.

We find the account correct.

Yours truly,

J. A. ALLEN,
GEORGE BIRD GRINNELL,
Auditing Committee.

Officers and Directors of the National Association of Audubon Societies for the Year 1908

OFFICERS

President, WILLIAM DUTCHER, of New York.
First Vice-President, THEO. S. PALMER, M.D., of District of Columbia
Second Vice-President, DR. JOEL A. ALLEN, of New York.
Secretary, T. GILBERT PEARSON, of North Carolina.
Treasurer, DR. JONATHAN DWIGHT, JR., of New York.
Attorney, SAMUEL T. CARTER, JR., of New York.

DIRECTORS

Class of 1909

MR. W. SCOTT WAY, California	MR. R. W. WILLIAMS, JR., Florida
MR. WILLIAM DUTCHER, New York	WM. HUBBELL FISHER, Ohio
MR. RALPH HOFFMANN, Massachusetts	

Class of 1910

DR. GEO. BIRD GRINNELL, New York	MRS. KINGSMILL MARRS, Florida
MR. ARTHUR H. NORTON, Maine	MRS. MABEL OSGOOD WRIGHT, Conn.
MR. H. P. ATTWATER, Texas	MR. WALTER J. BLAKELY, Missouri

Class of 1911

MR. FRANK BOND, Wyoming	DR. JOEL A. ALLEN, New York
MR. T. GILBERT PEARSON, N. C.	DR. DAVID STARR JORDAN, California

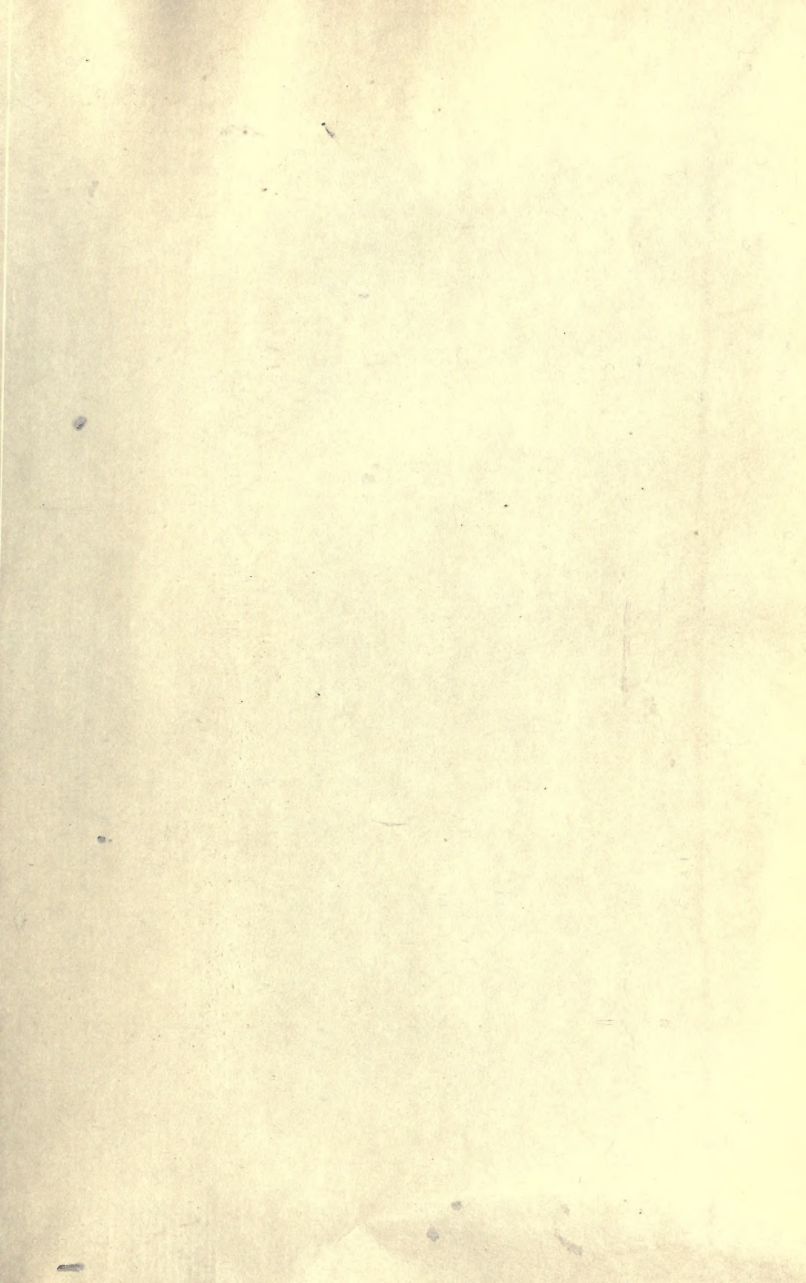
Class of 1912

MR. FRANK M. CHAPMAN, New York	MR. WILLIAM BREWSTER, Mass.
MR. WITMER STONE, Pennsylvania	DR. FREDERICK A. LUCAS, New York
DR. HERMAN C. BUMPUS, New York	MR. CARLTON D. HOWE, Vermont

Class of 1913

MRS. C. GRANT LAFARGE, New York	DR. JONATHAN DWIGHT, JR., New York
DR. THEO. S. PALMER, District of Columbia.	





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